State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

Product Name: Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

#### Filing at a Glance

Company: MedAmerica Insurance Company

Product Name: Long-Term Care State: Pennsylvania

TOI: LTC03G Group Long Term Care

Sub-TOI: LTC03G.001 Qualified

Filing Type: Rate - Other (Not M.U. or G.I. Product)

Date Submitted: 01/10/2020

SERFF Tr Num: MILL-132021942

SERFF Status: Assigned

State Tr Num: MILL-132021942

State Status: Received Review in Progress

Co Tr Num: SERIES 11 GROUP (MEDAMERICA)

Implementation On Approval

Date Requested:

Author(s): Missy Gordon, Courtney Williamson, Michael Emmert, Dexter Mosley, Cassi Noel, Derek

Lesniak, Matt Mickolichek, Lola Heimlich, Braden McDowell

Reviewer(s): Valerie Leonard (primary), Jim Laverty

Disposition Date:
Disposition Status:
Implementation Date:

State Filing Description:

Proposed aggregate 21.1% increase on 66 PA policyholders of MedAmerica's group LTC forms GRP11-342-MA-PA-601

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

Product Name: Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

#### **General Information**

Project Name: MedAmerica Nationwide 2020 Rate Increase Status of Filing in Domicile: Pending

Project Number: 145MAI01-30.07 Date Approved in Domicile:

Requested Filing Mode: Review & Approval Domicile Status Comments: Pennsylvania is the state of

domicile.

Explanation for Combination/Other: Market Type: Group

Submission Type: New Submission Group Market Size: Small and Large

Group Market Type: Employer Overall Rate Impact: 22.1%

Filing Status Changed: 01/13/2020

State Status Changed: 01/13/2020 Deemer Date:

Created By: Kjell Hokanson Submitted By: Courtney Williamson

Corresponding Filing Tracking Number:

State TOI: LTC03G Group Long Term Care State Sub-TOI: LTC03G.001 Qualified

#### Filing Description:

On behalf of the company, we are submitting the referenced rate filing for your review. This is an existing product(s) that provides long-term care coverage on a group basis. The company issued this product(s) in Pennsylvania from July 1, 2004 to October 1, 2007 and is no longer marketed in any jurisdiction. The company is making a similar request on the individual product(s) in a concurrent filing (SERFF Tracking # MILL-132217744).

The company is requesting a premium rate increase on the form(s), including all associated riders. The need for a premium rate increase is due to emerging and projected experience running more adverse than originally expected.

This rate increase request is a follow-up to two prior nationwide requests. However, because this jurisdiction did not allow full implementation of the prior requested increases, the rate level being requested in this follow-up filing was determined to be actuarially equivalent as described in Appendix B to the enclosed actuarial memorandum. As with the prior request, the requested rate increase varies by benefit period. The enclosed cover letter provides the average prior, requested, and cumulative rate increases for the form(s) by benefit period.

The prior increase reflects the cumulative increase of three prior increase(s) that were filed for use in May 2010, September 2017, and December 2018 on the form(s). The company is seeking this current rate increase request to help alleviate the adverse performance on this block of business.

As stated in the enclosed actuarial memorandum, a larger rate increase is justified on this block of business. If it is the Department's position to only allow future rate increases if experience deteriorates from the current most-likely projections used in this filing, the company respectfully requests that the Department notify them and allow the company to revise the current rate increase request.

Similar to the prior increase(s), the company will offer insureds affected by the premium increase the option of reducing their policy benefits to provide flexibility of choice for those insureds who wish to maintain a premium level reasonably similar to what they were paying prior to the rate increase. The company will offer a contingent benefit upon lapse to insureds that trigger a substantial rate increase. Additionally, the company will voluntarily offer a contingent benefit upon lapse to insureds affected by the rate increase, even if the increase is not considered substantial.

#### **Company and Contact**

#### **Filing Contact Information**

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

**Product Name:** Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

Michael Emmert, Associate Actuary michael.emmert@milliman.com

8500 Normandale Lake Blvd. 952-820-3116 [Phone]

**Suite 1850** 

Minneapolis, MN 55437

#### **Filing Company Information**

(This filing was made by a third party - millimaninc)

MedAmerica Insurance CompanyCoCode: 69515State of Domicile:165 Court StreetGroup Code: 1186PennsylvaniaRochester, NY 14647Group Name: Lifetime HealthCareCompany Type:

(800) 544-0327 ext. [Phone] Group

FEIN Number: 34-0977231 State ID Number:

Life/Accident/Health

#### **Filing Fees**

Fee Required? No Retaliatory? No

Fee Explanation:

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

**Product Name:** Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

#### **Rate Information**

Rate data applies to filing.

Filing Method: Review and Approval

Rate Change Type: Increase

Overall Percentage of Last Rate Revision: 20.000%

Effective Date of Last Rate Revision: 12/04/2018

Filing Method of Last Filing: Review and Approval SERFF Tracking Number of Last Filing: MILL-131609778

#### **Company Rate Information**

| 0                               | Overall % | Overall % | Written Premium | Number of Policy  | Written       | Maximum %      | Minimum %      |
|---------------------------------|-----------|-----------|-----------------|-------------------|---------------|----------------|----------------|
| Company                         | Indicated | Rate      | Change for      | Holders Affected  | Premium for   | Change         | Change         |
| Name:                           | Change:   | Impact:   | this Program:   | for this Program: | this Program: | (where req'd): | (where req'd): |
| MedAmerica Insurance<br>Company | 22.100%   | 22.100%   | \$28,728        | 66                | \$129,942     | 131.200%       | 22.100%        |

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

**Product Name:** Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

#### Rate/Rule Schedule

| Item<br>No. | Schedule<br>Item<br>Status | Document Name               | Affected Form Numbers (Separated with commas) | Rate Action | Rate Action Information   | Attachments   |
|-------------|----------------------------|-----------------------------|---|-------------|---|---|
| 1           |                            | Series 11 Group Rate Tables | GRP11-342-MA-PA-601                           | Revised     | Previous State Filing Number:<br>MILL-131609778<br>Percent Rate Change Request:<br>22.1 | PA_MedAmerica_Curr<br>ent Premium<br>Rates_Series 11<br>Group_20200110.pdf,<br>PA_MedAmerica_Prop<br>osed Premium<br>Rates_Series 11<br>Group_20200110.pdf, |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for Lifetime Premium Payment Option 0 Day Elimination Period Current Annual Premium Rates Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601
Base Certificate with No Inflation Protection

Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

| Issue                                 |          | E        | Benefit Period | ı        |          |          |          | Benefit Period                        | ı        |          |          |          | Benefit Period | ı         |            |
|---------------------------------------|----------|----------|----------------|----------|----------|----------|----------|---------------------------------------|----------|----------|----------|----------|----------------|-----------|------------|
| Age                                   | 2 Years  | 3 Years  | 4 Years        | 5 Years  | Lifetime | 2 Years  | 3 Years  | 4 Years                               | 5 Years  | Lifetime | 2 Years  | 3 Years  | 4 Years        | 5 Years   | Lifetime   |
| · · · · · · · · · · · · · · · · · · · | · · ·    |          |                |          |          |          |          | · · · · · · · · · · · · · · · · · · · |          |          | ·        |          |                |           |            |
| <22                                   | 8        | 10       | 12             | 12       | 16       | 4        | 6        | 6                                     | 8        | 10       | 30       | 38       |                | 54        | 68         |
| 22                                    | 10       | 10       | 12             | 14       | 18       | 4        | 6        | 6                                     | 8        | 10       | 28       | 40       |                | 54        | 70         |
| 23                                    | 10       | 10       | 12             | 14       | 18       | 4        | 6        | 8                                     | 8        | 12       | 30       | 42       |                | 58        | 72         |
| 24                                    | 10       | 12       | 14             | 14       | 20       | 4        | 6        | 6                                     | 10       | 12       | 32       | 42       |                | 60        | 74         |
| 25                                    | 10       | 12       | 14             | 16       | 20       | 6        | 6        | 8                                     | 8        | 14       | 34       | 44       |                | 60        | 78         |
| 26                                    | 10       | 12       | 14             | 16       | 22       | 6        | 8        | 8                                     | 10       | 14       | 36       | 46       |                | 64        | 80         |
| 27                                    | 12       | 14       | 16             | 18       | 22       | 4        | 6        | 8                                     | 10       | 16       | 34       | 46       |                | 66        | 84         |
| 28                                    | 12       | 14       | 16             | 18       | 24       | 6        | 8        | 10                                    | 12       | 16       | 36       | 48       |                | 68        | 86         |
| 29                                    | 12       | 14       | 16             | 20       | 26       | 6        | 8        | 12                                    | 12       | 16       | 38       | 50       |                | 70        | 88         |
| 30                                    | 12       | 16       | 18             | 20       | 26       | 8        | 8        | 12                                    | 14       | 18       | 40       | 52       |                | 74        | 94         |
| 31                                    | 14       | 16       | 18             | 22       | 28       | 6        | 10       | 12                                    | 14       | 20       | 40       | 54       |                | 76        | 96         |
| 32                                    | 14       | 18       | 20             | 22       | 30       | 8        | 10       | 12                                    | 16       | 20       | 42       | 54       |                | 80        | 100        |
| 33                                    | 14       | 18       | 22             | 24       | 32       | 10       | 12       | 14                                    | 16       | 22       | 46       | 58       |                | 82        | 102        |
| 34                                    | 16       | 20       | 22             | 26       | 34       | 8        | 12       | 16                                    | 16       | 24       | 46       | 58       |                | 84        | 106        |
| 35                                    | 16       | 20       | 24             | 28       | 36       | 10       | 14       | 16                                    | 18       | 26       | 48       | 62       |                | 86        | 110        |
| 36<br>37                              | 18       | 22       | 26<br>26       | 28<br>30 | 38       | 10       | 14       | 16                                    | 20       | 28<br>30 | 48       | 64       |                | 92        | 114        |
|                                       | 18       | 22       |                | 30       | 40       | 12       | 16       | 20                                    | 22       |          | 52<br>52 | 66       |                | 94        | 118<br>120 |
| 38<br>39                              | 20<br>20 | 24<br>26 | 28<br>30       | 32<br>36 | 44<br>46 | 12<br>14 | 16<br>16 | 20<br>22                              | 24<br>24 | 30<br>34 | 52<br>56 | 68<br>70 |                | 98<br>100 | 120        |
| 40                                    | 20       | 28       | 32             | 38       | 50       | 14       | 18       | 24                                    | 26       | 34       | 56       | 70       |                | 104       | 128        |
| 41                                    | 24       | 30       | 34             | 40       | 52       | 14       | 20       | 26                                    | 28       | 38       | 58       | 76       |                | 104       | 134        |
| 42                                    | 26       | 32       | 38             | 40       | 56<br>56 | 16       | 20       | 26                                    | 32       | 40       | 60       | 78       |                | 112       | 138        |
| 43                                    | 26       | 34       | 40             | 42       | 60       | 18       | 20       | 28                                    | 32       | 44       | 64       | 80       |                | 116       | 142        |
| 44                                    | 28       | 36       | 42             | 50       | 64       | 20       | 24       | 32                                    | 34       | 46       | 66       | 84       |                | 118       | 148        |
| 45                                    | 30       | 38       | 46             | 52       | 68       | 20       | 26       | 32                                    | 38       | 50       | 68       | 88       |                | 124       | 152        |
| 46                                    | 32       | 40       | 48             | 56       | 74       | 22       | 30       | 36                                    | 42       | 52       | 70       | 90       |                | 128       | 156        |
| 47                                    | 34       | 44       | 52             | 60       | 78       | 24       | 30       | 38                                    | 44       | 58       | 72       | 92       |                | 132       | 162        |
| 48                                    | 38       | 46       | 56             | 64       | 84       | 24       | 34       | 42                                    | 48       | 62       | 74       | 98       |                | 138       | 168        |
| 49                                    | 40       | 50       | 60             | 70       | 90       | 28       | 36       | 44                                    | 52       | 66       | 76       | 100      |                | 140       | 174        |
| 50                                    | 42       | 54       | 66             | 76       | 98       | 30       | 38       | 46                                    | 54       | 70       | 80       | 104      |                | 146       | 178        |
| 51                                    | 46       | 58       | 70             | 82       | 104      | 32       | 42       | 52                                    | 58       | 76       | 82       | 106      |                | 150       | 184        |
| 52                                    | 50       | 62       | 76             | 88       | 112      | 34       | 46       | 56                                    | 64       | 82       | 84       | 110      |                | 156       | 190        |
| 53                                    | 54       | 68       | 82             | 94       | 122      | 36       | 48       | 60                                    | 70       | 86       | 86       | 114      |                | 162       | 194        |
| 54                                    | 58       | 74       | 88             | 102      | 130      | 40       | 52       | 64                                    | 74       | 94       | 90       | 116      |                | 166       | 202        |
| 55                                    | 62       | 80       | 96             | 112      | 142      | 44       | 56       | 70                                    | 80       | 98       | 94       | 120      |                | 170       | 208        |
| 56                                    | 68       | 86       | 104            | 120      | 152      | 46       | 60       | 74                                    | 86       | 108      | 96       | 126      |                | 178       | 214        |
| 57                                    | 74       | 94       | 114            | 130      | 164      | 48       | 64       | 78                                    | 94       | 116      | 98       | 128      |                | 184       | 222        |
| 58                                    | 80       | 102      | 124            | 142      | 178      | 52       | 68       | 84                                    | 100      | 122      | 102      | 132      |                | 188       | 228        |
| 59                                    | 86       | 110      | 134            | 154      | 194      | 58       | 74       | 92                                    | 106      | 130      | 104      | 138      | 168            | 194       | 234        |
| 60                                    | 94       | 120      | 146            | 168      | 210      | 62       | 80       | 98                                    | 116      | 140      | 108      | 142      | 174            | 202       | 242        |
| 61                                    | 102      | 130      | 158            | 184      | 228      | 66       | 86       | 106                                   | 122      | 150      | 112      | 146      |                | 206       | 248        |
| 62                                    | 110      | 142      | 172            | 200      | 248      | 70       | 92       | 112                                   | 130      | 158      | 116      | 150      | 184            | 212       | 254        |
| 63                                    | 120      | 154      | 188            | 218      | 268      | 74       | 98       | 120                                   | 138      | 168      | 118      | 154      | 190            | 218       | 262        |
| 64                                    | 130      | 168      | 204            | 236      | 290      | 80       | 104      | 128                                   | 148      | 178      | 122      | 158      | 194            | 226       | 270        |
| 65                                    | 142      | 184      | 224            | 258      | 316      | 84       | 110      | 134                                   | 158      | 190      | 126      | 164      |                | 232       | 278        |
| 66                                    | 154      | 200      | 242            | 280      | 344      | 90       | 116      | 144                                   | 168      | 200      | 128      | 168      | 206            | 240       | 284        |
| 67                                    | 168      | 216      | 264            | 306      | 372      | 94       | 124      | 152                                   | 176      | 212      | 130      | 172      |                | 244       | 290        |
| 68                                    | 182      | 236      | 288            | 332      | 404      | 98       | 130      | 158                                   | 186      | 222      | 134      | 176      |                | 250       | 296        |
| 69                                    | 196      | 256      | 312            | 362      | 438      | 104      | 136      | 168                                   | 194      | 232      | 138      | 178      |                | 254       | 302        |
| 70                                    | 214      | 278      | 340            | 394      | 474      | 108      | 142      | 176                                   | 204      | 244      | 140      | 184      |                | 260       | 310        |
| 71                                    | 232      | 302      | 368            | 428      | 514      | 114      | 148      | 184                                   | 212      | 256      | 142      | 186      |                | 264       | 314        |
| 72                                    | 250      | 326      | 400            | 464      | 558      | 118      | 156      | 192                                   | 222      | 264      | 144      | 190      |                | 268       | 316        |
| 73                                    | 270      | 354      | 434            | 502      | 604      | 122      | 160      | 198                                   | 230      | 272      | 146      | 190      |                | 272       | 318        |
| 74                                    | 292      | 382      | 468            | 544      | 650      | 126      | 166      | 204                                   | 236      | 282      | 146      | 192      |                | 272       | 322        |
| 75                                    | 320      | 418      | 512            | 594      | 711      | 130      | 172      | 212                                   | 246      | 290      | 148      | 194      |                | 276       | 322        |
| 76                                    | 348      | 456      | 558            | 648      | 773      | 134      | 176      | 218                                   | 252      | 298      | 148      | 194      |                | 276       | 324        |
| 77                                    | 378      | 494      | 608            | 707      | 839      | 136      | 182      | 222                                   | 258      | 306      | 148      | 194      |                | 276       | 324        |
| 78                                    | 410      | 538      | 660            | 769      | 911      | 140      | 184      | 228                                   | 264      | 312      | 146      | 192      |                | 274       | 320        |
| 79                                    | 444      | 584      | 719            | 835      | 989      | 118      | 156      | 194                                   | 226      | 266      | 146      | 190      |                | 272       | 316        |
| 80                                    | 484      | 636      | 787            | 915      | 1,081    | 120      | 160      | 198                                   | 230      | 270      | 146      | 192      |                | 272       | 316        |
| 81                                    | 524      | 691      | 853            | 993      | 1,171    | 122      | 160      | 196                                   | 230      | 268      | 144      | 188      |                | 266       | 308        |
| 82                                    | 566      | 749      | 923            | 1,077    | 1,267    | 122      | 158      | 198                                   | 228      | 268      | 140      | 182      |                | 260       | 300        |
| 83                                    | 612      | 807      | 999            | 1,163    | 1,367    | 120      | 158      | 194                                   | 228      | 266      | 136      | 180      |                | 254       | 292        |
| 84                                    | 660      | 871      | 1,079          | 1,257    | 1,475    | 118      | 158      | 192                                   | 224      | 262      | 132      | 174      |                | 244       | 282        |
| 85                                    | 713      | 939      | 1,163          | 1,357    | 1,589    | 116      | 154      | 190                                   | 220      | 258      | 128      | 168      | 202            | 234       | 268        |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for 10-Year Premium Payment Option 0 Day Elimination Period Current Annual Premium Rates Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601
Base Certificate with No Inflation Protection

Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

|          | Das     | e Certificate | with NO iiii  | ation Frotec | 11011      |          | Simple iii | nation Frotec | tion Rider     |          |         | Compound   | iiiiatioii Fiot | ection Rider   |            |
|----------|---------|---------------|---------------|--------------|------------|----------|------------|---------------|----------------|----------|---------|------------|-----------------|----------------|------------|
| Issue    |         | -             | Benefit Perio | 4            |            |          |            | Benefit Perio | d              |          |         |            | Benefit Perio   | d              |            |
| Age      | 2 Years | 3 Years       | 4 Years       | 5 Years      | Lifetime   | 2 Years  | 3 Years    | 4 Years       | 5 Years        | Lifetime | 2 Years | 3 Years    | 4 Years         | 5 Years        | Lifetime   |
| rigo     | 2 70070 | 0 70070       | 7 70070       | 0 10010      | Liiotiiiio | 2 70010  | O rouro    | 7 70070       | <u>o rouro</u> | Litotimo | L rouro | 0 70070    | 7 70070         | <u>o rouro</u> | Liiotiiiio |
| <22      | 20      | 24            | 28            | 32           | 42         | 14       | 18         | 22            | 24             | 34       | 132     | 170        | 208             | 242            | 300        |
| 22       | 22      | 26            | 30            | 34           | 46         | 12       | 18         | 22            | 26             | 34       | 132     | 174        | 212             | 246            | 304        |
| 23       | 22      | 26            | 32            | 36           | 48         | 14       | 20         | 22            | 26             | 36       | 136     | 178        | 216             | 250            | 310        |
| 24       | 24      | 28            | 34            | 38           | 50         | 14       | 20         | 24            | 28             | 38       | 138     | 180        | 220             | 254            | 316        |
| 25       | 24      | 30            | 34            | 40           | 52         | 16       | 20         | 26            | 30             | 40       | 140     | 182        | 226             | 260            | 322        |
| 26       | 26      | 30            | 36            | 42           | 56         | 16       | 24         | 28            | 32             | 42       | 142     | 188        | 228             | 264            | 326        |
| 27       | 26      | 32            | 38            | 44           | 58         | 18       | 24         | 30            | 34             | 46       | 146     | 190        | 232             | 270            | 332        |
| 28       | 28      | 34            | 40            | 46           | 62         | 20       | 26         | 32            | 36             | 48       | 148     | 190        | 232             | 274            | 338        |
| 29       | 30      | 36            | 42            | 50           | 64         | 20       |            | 34            | 38             | 52       | 150     | 194        | 242             | 274            | 344        |
|          | 30      |               |               | 52           | 68         |          | 26         |               |                | 52<br>54 |         |            |                 |                |            |
| 30       | 30      | 38            | 46            | 52<br>54     | 72         | 22<br>24 | 28<br>30   | 34<br>36      | 40<br>44       | 54<br>56 | 154     | 200        | 244             | 282            | 350        |
| 31<br>32 | 34      | 40<br>42      | 48<br>50      | 54<br>58     | 72<br>76   | 24       | 30         | 40            | 44<br>46       | 60       | 156     | 204<br>206 | 248<br>254      | 288<br>292     | 354<br>360 |
|          |         |               |               |              |            |          |            |               |                |          | 158     |            |                 |                |            |
| 33       | 36      | 44            | 52            | 60           | 80         | 26       | 34         | 42            | 50             | 64       | 160     | 210        | 258             | 298            | 366        |
| 34       | 38      | 46            | 56            | 64           | 84         | 26       | 36         | 44            | 52             | 68       | 164     | 214        | 260             | 302            | 372        |
| 35       | 40      | 50            | 58            | 68           | 88         | 28       | 36         | 48            | 54             | 72       | 166     | 216        | 266             | 306            | 378        |
| 36       | 42      | 52            | 62            | 72           | 94         | 30       | 40         | 50            | 58             | 74       | 168     | 220        | 270             | 312            | 382        |
| 37       | 44      | 54            | 66            | 76           | 100        | 32       | 44         | 52            | 60             | 78       | 172     | 224        | 274             | 316            | 388        |
| 38       | 46      | 58            | 70            | 80           | 104        | 34       | 44         | 54            | 64             | 84       | 174     | 226        | 276             | 322            | 394        |
| 39       | 48      | 60            | 74            | 84           | 110        | 38       | 48         | 58            | 70             | 90       | 176     | 230        | 280             | 326            | 400        |
| 40       | 50      | 64            | 78            | 90           | 116        | 40       | 52         | 62            | 72             | 94       | 180     | 234        | 286             | 330            | 406        |
| 41       | 54      | 68            | 82            | 94           | 124        | 42       | 54         | 66            | 78             | 98       | 182     | 236        | 290             | 336            | 410        |
| 42       | 56      | 72            | 86            | 100          | 130        | 44       | 56         | 70            | 82             | 106      | 184     | 240        | 294             | 340            | 416        |
| 43       | 60      | 76            | 92            | 106          | 138        | 46       | 60         | 74            | 86             | 110      | 186     | 242        | 298             | 344            | 420        |
| 44       | 64      | 80            | 98            | 112          | 146        | 48       | 64         | 78            | 92             | 116      | 188     | 246        | 300             | 350            | 426        |
| 45       | 66      | 84            | 104           | 120          | 154        | 52       | 68         | 82            | 96             | 124      | 192     | 250        | 304             | 352            | 430        |
| 46       | 70      | 90            | 110           | 126          | 162        | 56       | 72         | 88            | 102            | 130      | 194     | 252        | 308             | 358            | 436        |
| 47       | 74      | 96            | 116           | 134          | 172        | 58       | 76         | 92            | 108            | 138      | 196     | 254        | 312             | 360            | 440        |
| 48       | 78      | 100           | 122           | 142          | 182        | 62       | 82         | 98            | 114            | 144      | 198     | 258        | 316             | 364            | 444        |
| 49       | 84      | 106           | 130           | 150          | 192        | 64       | 86         | 104           | 122            | 154      | 200     | 262        | 318             | 370            | 448        |
| 50       | 88      | 114           | 138           | 160          | 204        | 70       | 90         | 110           | 128            | 160      | 202     | 262        | 322             | 372            | 452        |
| 51       | 94      | 120           | 146           | 168          | 216        | 72       | 96         | 116           | 136            | 170      | 202     | 266        | 326             | 378            | 456        |
| 52       | 100     | 128           | 154           | 180          | 228        | 76       | 100        | 124           | 142            | 180      | 204     | 268        | 328             | 380            | 460        |
| 53       | 106     | 136           | 164           | 190          | 242        | 80       | 106        | 130           | 152            | 188      | 206     | 270        | 332             | 384            | 464        |
| 54       | 112     | 144           | 174           | 202          | 256        | 86       | 112        | 138           | 160            | 198      | 208     | 272        | 334             | 386            | 466        |
| 55       | 118     | 152           | 186           | 216          | 272        | 90       | 118        | 144           | 168            | 208      | 210     | 274        | 336             | 388            | 468        |
| 56       | 126     | 162           | 198           | 228          | 288        | 94       | 124        | 152           | 178            | 218      | 210     | 276        | 336             | 392            | 472        |
| 57       | 134     | 172           | 210           | 244          | 306        | 98       | 130        | 160           | 186            | 228      | 212     | 276        | 340             | 392            | 472        |
| 58       | 142     | 182           | 224           | 258          | 324        | 104      | 138        | 166           | 196            | 238      | 212     | 278        | 340             | 396            | 474        |
| 59       | 150     | 194           | 238           | 276          | 344        | 110      | 142        | 174           | 202            | 248      | 214     | 278        | 340             | 394            | 474        |
| 60       | 160     | 208           | 254           | 294          | 366        | 114      | 148        | 184           | 214            | 260      | 214     | 280        | 342             | 398            | 478        |
| 61       | 170     | 220           | 268           | 312          | 386        | 118      | 156        | 192           | 222            | 272      | 214     | 280        | 344             | 398            | 478        |
| 62       | 180     | 234           | 286           | 332          | 410        | 124      | 162        | 200           | 232            | 282      | 214     | 280        | 344             | 398            | 476        |
| 63       | 192     | 248           | 304           | 352          | 434        | 128      | 168        | 206           | 240            | 292      | 212     | 280        | 342             | 398            | 476        |
| 64       | 202     | 262           | 322           | 372          | 458        | 134      | 176        | 214           | 250            | 302      | 214     | 280        | 342             | 398            | 476        |
| 65       | 214     | 280           | 342           | 396          | 486        | 138      | 180        | 222           | 260            | 312      | 214     | 278        | 342             | 398            | 474        |
| 66       | 228     | 296           | 362           | 420          | 514        | 142      | 186        | 230           | 268            | 322      | 212     | 278        | 342             | 396            | 472        |
| 67       | 240     | 314           | 384           | 446          | 544        | 146      | 190        | 236           | 274            | 328      | 210     | 276        | 338             | 392            | 466        |
| 68       | 254     | 332           | 406           | 472          | 574        | 150      | 196        | 242           | 280            | 336      | 208     | 274        | 336             | 390            | 462        |
| 69       | 270     | 352           | 430           | 500          | 606        | 152      | 200        | 248           | 286            | 344      | 206     | 270        | 334             | 386            | 458        |
| 70       | 284     | 372           | 456           | 530          | 642        | 156      | 204        | 252           | 292            | 348      | 204     | 268        | 330             | 382            | 452        |
| 71       | 300     | 394           | 484           | 562          | 679        | 158      | 206        | 254           | 296            | 354      | 202     | 264        | 324             | 376            | 446        |
| 72       | 318     | 416           | 512           | 596          | 717        | 158      | 210        | 258           | 300            | 360      | 198     | 260        | 320             | 370            | 440        |
| 73       | 336     | 440           | 542           | 630          | 759        | 160      | 212        | 260           | 304            | 360      | 194     | 256        | 314             | 364            | 430        |
| 74       | 354     | 464           | 572           | 666          | 799        | 162      | 214        | 262           | 304            | 362      | 190     | 252        | 308             | 358            | 422        |
| 75       | 378     |               |               |              | 849        |          |            |               | 308            | 364      |         | 248        | 304             | 352            |            |
|          |         | 496           | 610           | 711          |            | 164      | 214        | 266           |                |          | 188     |            |                 |                | 414        |
| 76<br>77 | 404     | 530           | 652           | 759          | 905        | 162      | 214        | 266           | 310            | 366      | 182     | 240        | 296             | 344            | 404        |
| 77       | 430     | 564           | 697           | 809          | 963        | 164      | 216        | 266           | 312            | 368      | 180     | 236        | 290             | 338            | 394        |
| 78       | 458     | 602           | 743           | 865          | 1,027      | 164      | 216        | 268           | 312            | 368      | 174     | 230        | 284             | 328            | 384        |
| 79       | 488     | 642           | 795           | 925          | 1,097      | 138      | 184        | 226           | 262            | 310      | 172     | 224        | 274             | 320            | 372        |
| 80       | 524     | 691           | 853           | 995          | 1,177      | 136      | 182        | 226           | 262            | 306      | 166     | 218        | 270             | 312            | 362        |
| 81       | 560     | 739           | 915           | 1,065        | 1,259      | 136      | 180        | 220           | 258            | 302      | 162     | 212        | 260             | 302            | 350        |
| 82       | 598     | 791           | 979           | 1,143        | 1,347      | 134      | 178        | 218           | 254            | 298      | 158     | 206        | 252             | 290            | 336        |
| 83       | 640     | 847           | 1,049         | 1,223        | 1,439      | 132      | 174        | 214           | 250            | 292      | 152     | 198        | 242             | 280            | 324        |
| 84       | 687     | 907           | 1,123         | 1,311        | 1,539      | 128      | 170        | 210           | 246            | 286      | 146     | 190        | 232             | 268            | 308        |
| 85       | 735     | 971           | 1,203         | 1,405        | 1,647      | 126      | 166        | 204           | 238            | 278      | 140     | 182        | 220             | 254            | 292        |
|          |         |               |               |              |            |          |            |               |                |          |         |            |                 |                |            |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for 20-Year Premium Payment Option 0 Day Elimination Period Current Annual Premium Rates Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601
Base Certificate with No Inflation Protection

Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

| Part      |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
|--|-------|---------|-----|----------------|-------|----------|---------|---------|----------------|-----|----------|---|-------|---------|----------------|---------|----------|
| The color of the   | Issue |         | E   | Benefit Period | ı     |          |         |         | Benefit Period |     |          |   |       |         | Benefit Period |         |          |
| The color of the   |       | 2 Years |     |                |       | Lifetime | 2 Years | 3 Years |                |     | Lifetime | 2 | Years | 3 Years |                | 5 Years | Lifetime |
| 22   |       |         |     |                |       |          |         |         |                |     |          | _ |       |         |                |         |          |
| 23   | <22   | 14      | 16  | 20             | 22    | 28       | 8       | 10      | 12             | 16  | 22       |   | 84    | 110     | 134            | 156     | 192      |
| 24   | 22    | 14      | 16  | 20             | 22    | 30       | 8       | 12      | 14             | 18  | 22       |   | 86    | 112     | 136            | 160     | 196      |
| 25   | 23    | 14      | 18  | 20             | 24    | 32       | 10      | 12      | 16             | 18  | 22       |   | 88    | 114     | 140            | 162     | 198      |
| 25   | 24    | 16      | 18  | 22             | 24    | 32       | 10      | 14      | 16             | 20  | 26       |   | 88    | 116     | 142            | 166     | 204      |
| 26   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 27   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 28   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 20   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 30   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 31   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 32   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 33   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 34   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 36   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 36   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 38 30 38 44 50 66 22 28 34 40 50 112 146 178 206 252 38 30 38 46 55 68 24 30 36 42 56 114 148 180 210 285 39 32 40 40 48 56 77 2 24 32 32 38 44 58 118 150 118 122 252 31 32 40 40 48 56 77 2 24 32 32 38 44 48 58 118 150 120 220 252 41 38 44 54 62 47 20 28 28 33 44 44 58 81 18 150 156 192 222 252 41 38 48 58 66 68 68 28 38 38 46 54 68 120 156 192 222 252 41 44 42 54 64 74 96 32 42 52 62 78 124 162 198 230 286 41 44 55 66 77 2 92 30 40 48 58 72 122 160 194 226 272 44 44 55 68 68 68 102 38 48 68 68 102 38 48 68 120 156 192 222 252 44 40 55 68 68 68 102 38 48 68 88 120 156 192 222 252 44 49 54 64 77 8 96 114 38 38 46 68 88 120 168 122 224 252 45 46 45 54 68 78 28 28 28 28 28 28 28 28 28 28 28 28 28   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 38   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 39 32 40 48 56 72 24 32 38 44 58 116 150 184 212 280 40 40 34 42 52 60 78 26 34 40 46 60 116 154 186 214 282 44 38 44 58 66 78 28 34 44 52 64 61 118 154 190 220 285 24 41 38 48 56 67 68 86 229 34 44 52 64 61 118 154 190 220 285 274 44 42 54 64 74 96 32 42 52 63 48 48 56 67 68 80 102 36 46 55 64 82 128 160 142 142 142 142 144 142 144 144 144 144   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 40 34 42 52 60 78 26 34 40 46 60 116 154 186 214 282 41 33 646 54 62 82 26 34 44 552 64 118 154 190 220 286 42 38 84 85 86 86 86 86 28 38 38 46 54 68 120 156 192 222 272 272 43 44 45 86 872 142 100 144 228 274 142 143 144 144 144 144 144 144 144 144 144  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 41 36 46 54 62 82 26 34 44 52 64 118 154 190 220 288 42 42 38 46 54 68 120 156 192 222 272 43 40 50 62 70 92 30 40 48 58 72 122 160 194 226 274 44 42 54 64 74 99 32 42 52 62 78 124 162 1198 230 289 144 44 48 50 68 8 81 102 33 44 55 66 66 68 84 102 33 42 52 62 78 124 162 1198 230 289 144 44 48 50 68 78 80 1102 33 44 55 66 64 88 81 128 144 224 224 224 40 54 66 78 96 130 170 210 242 294 49 55 67 2 88 100 130 44 56 68 78 96 130 170 210 242 294 49 56 77 28 80 100 130 44 56 68 78 96 130 170 210 242 294 50 50 60 76 92 108 138 46 60 74 86 106 134 176 212 246 296 50 60 76 92 108 138 46 60 74 86 106 134 176 212 248 304 55 68 88 100 130 170 210 242 294 55 68 88 100 130 170 210 242 294 55 68 88 100 130 170 210 242 294 55 68 182 144 146 48 64 86 80 74 86 106 134 176 216 248 304 55 68 88 100 130 170 210 242 294 55 68 182 100 134 174 212 246 296 50 60 76 92 108 138 146 56 68 88 190 134 174 212 246 296 296 296 296 296 296 296 296 296 29   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 42 38 48 58 66 86 28 38 46 54 68 120 156 192 222 272 43 40 50 62 770 92 30 40 48 58 72 122 160 194 226 274 44 42 54 66 770 82 30 40 48 55 64 82 128 164 162 198 230 280 45 44 56 68 88 80 102 36 46 56 64 82 128 164 202 232 284 46 48 60 77 84 1108 38 46 66 87 88 120 1102 36 46 56 64 82 128 164 202 232 284 46 48 60 77 84 1108 38 46 66 87 88 120 1102 38 140 180 180 180 180 180 180 180 180 180 18  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 43   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 44 42 54 64 74 96 32 42 52 62 78 124 162 198 230 280 45 44 55 68 80 102 36 46 56 64 82 126 166 204 232 284 46 48 60 772 84 108 36 48 60 68 86 128 166 204 232 284 47 50 64 78 90 114 38 50 62 72 82 130 188 206 238 290 48 54 68 78 80 112 2 40 45 46 60 68 86 128 130 188 206 238 290 48 54 68 78 80 112 2 40 45 46 60 68 86 128 130 188 206 238 290 48 54 68 78 80 114 14 14 14 14 14 14 14 14 14 14 14 14   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 45 44 56 68 80 102 38 46 56 64 82 126 164 202 232 284 46 48 60 72 84 108 36 48 50 68 86 128 166 204 236 286 47 50 64 78 90 114 38 50 62 72 92 130 168 206 238 290 48 54 68 82 94 122 40 54 66 88 62 100 130 170 210 242 294 49 56 72 88 100 130 144 56 68 82 100 134 174 212 246 294 49 56 76 89 106 128 144 144 48 56 68 82 100 134 174 212 246 294 51 68 88 182 91 108 122 144 144 55 68 82 100 134 174 212 246 298 51 68 182 108 128 120 138 176 60 76 94 110 134 142 186 226 228 311 52 68 82 100 138 176 60 76 94 110 134 142 186 226 226 314 55 82 106 128 148 188 62 80 100 16 140 144 146 223 226 318 56 88 112 138 158 200 66 86 86 104 122 148 144 190 230 266 318 56 88 112 138 158 158 200 66 86 104 122 148 144 190 230 266 318 56 100 130 158 182 228 74 94 116 136 166 148 192 234 270 326 58 100 130 158 182 228 74 94 116 136 166 148 192 234 270 326 58 100 130 158 182 228 74 94 116 136 166 148 192 236 286 326 60 114 148 188 188 218 228 328 34 166 128 188 192 236 288 322 60 114 148 188 188 220 288 328 328 328 328 328 328 328 328 328   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 46   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 47         50         64         78         90         114         38         50         62         72         92         130         168         206         238         290           48         54         68         82         94         122         40         54         66         78         96         130         170         212         224         294           49         56         72         88         100         138         46         60         74         86         106         134         174         212         246         296           51         64         82         98         114         146         48         64         80         92         114         136         178         218         252         304           52         68         86         106         122         154         52         68         82         96         122         138         182         220         256         310           53         72         92         112         130         164         56         72         88         102         128         140         184         224         258   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 48   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 49         56         72         88         100         130         44         56         68         82         100         134         174         212         246         296           51         64         82         98         114         146         48         64         80         92         114         136         178         218         252         304           52         68         86         106         122         154         52         68         82         96         112         138         182         220         256         310           53         72         92         112         130         164         56         72         88         102         128         140         184         226         266         312           54         76         98         120         138         176         60         76         94         110         134         144         186         226         262         314           55         82         106         128         148         188         62         80         100         116         140         144         180         230   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 50         60         76         92         108         138         46         60         74         86         106         134         176         216         248         300           51         64         82         98         114         136         178         218         252         304           52         68         86         106         122         154         52         68         82         96         122         138         182         220         256         310           53         72         92         112         130         164         56         72         88         102         128         148         224         258         312           54         76         98         120         138         176         60         76         94         110         134         142         186         226         262         314           55         82         106         128         148         188         62         90         61         110         134         142         186         226         262         314           55         82         106         128  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 511         64         82         98         114         146         48         64         80         92         114         136         178         218         252         304           53         72         92         1112         130         164         56         72         88         102         128         140         184         224         258         312           54         76         98         120         138         182         226         282         314           55         82         106         128         148         188         62         80         100         116         140         144         186         226         262         314           56         82         106         128         148         188         62         80         100         116         144         190         230         266         318           56         88         112         138         158         200         66         86         101         112         148         144         190         234         270         326           57         94         120         146         179 <td></td>   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 52         68         86         106         122         154         52         68         82         96         122         138         162         220         256         310           53         72         92         112         138         176         60         76         94         110         134         142         188         226         262         314           55         82         106         128         148         188         62         80         100         116         140         144         186         226         262         314           56         88         112         138         1168         200         66         86         104         122         148         144         190         230         268         322           57         94         120         146         170         212         68         90         112         128         158         146         192         236         274         328           59         118         138         188         196         242         278         84         116         136         166         148         192         2  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 653         72         92         112         130         164         56         72         88         102         128         140         184         224         258         312           654         76         98         120         138         148         188         62         80         100         116         140         144         186         226         262         318           65         88         112         138         158         200         66         86         104         142         148         144         190         230         266         318           65         88         112         138         158         200         66         86         104         142         148         144         190         230         266         318           68         100         130         158         182         228         74         94         116         148         182         210         200         80         106         130         150         184         150         188         242         280         332           60         116         148         182         210         <  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 64         76         98         120         138         176         60         76         94         110         134         142         186         226         262         314           65         88         112         138         158         200         66         86         104         122         148         144         190         230         268         322           67         94         120         146         170         212         68         90         112         128         158         146         192         234         270         326           68         100         130         158         182         228         74         94         116         136         166         148         192         236         274         328           69         116         148         182         2210         280         80         106         150         184         150         198         242         236         274         332           60         116         148         182         210         280         84         110         138         166         142         142         186  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 55   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 56         88         112         138         158         200         66         86         90         112         148         144         190         230         288         322           57         94         120         146         170         212         88         90         112         128         158         146         192         234         270         326           58         100         130         158         182         228         74         94         116         136         166         148         192         236         274         328           69         116         148         182         210         260         80         106         130         150         150         144         150         188         242         280         332           61         124         160         194         224         278         84         110         138         160         194         152         200         246         284         340           62         132         170         208         242         298         90         118         144         166         202         290  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 57         94         120         146         170         212         68         90         112         128         158         146         192         234         270         326         55         59         108         138         168         196         242         76         100         124         142         176         148         196         240         276         332         60         116         148         192         236         274         328         60         116         148         196         242         280         80         100         130         150         184         150         198         242         226         332         61         124         180         194         224         278         84         110         138         160         194         152         200         246         284         30         62         132         170         208         242         298         90         118         144         160         194         152         200         246         284         30         36         64         252         298         334         180         160         194         152         200<   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 58         100         130         158         182         228         74         94         116         136         166         148         192         236         274         328           59         108         138         118         196         242         76         100         124         142         176         118         148         196         240         276         336           61         116         148         182         210         280         80         106         130         150         184         150         198         242         280         336           61         124         160         194         224         278         84         110         188         160         194         152         200         246         284         340           62         132         170         208         242         298         90         118         144         166         202         248         286         342           63         142         184         224         258         318         94         122         150         176         212         156         204         250   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 59         108         138         168         196         242         76         100         124         142         176         148         196         240         276         332           60         116         148         182         210         280         80         106         130         150         184         150         198         242         284         340           61         124         160         194         224         278         84         110         138         160         194         152         200         246         284         340           62         132         170         208         242         298         90         118         144         166         202         154         202         248         286         342         63         142         184         224         288         318         94         122         150         176         212         156         204         226         228         238         342         98         130         158         184         222         158         206         252         292         346         65         164         212         212<   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 60         116         148         182         210         260         80         106         130         150         184         150         198         242         220         336           61         124         160         194         224         278         84         110         138         160         194         152         200         246         224         288         342           63         142         184         224         228         318         94         122         150         176         212         156         204         250         290         346           64         152         196         240         278         342         98         130         158         184         222         158         206         252         292         346           65         164         212         258         300         366         102         136         166         192         232         158         208         256         294         352           66         176         228         278         332         392         108         144         174         202         234         160 <td></td>  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 61 124 160 194 224 278 84 110 138 160 194 152 200 246 284 340 62 132 170 208 242 298 90 118 144 166 202 154 202 248 286 340 63 142 184 224 228 238 318 94 122 150 176 212 156 204 250 290 346 64 152 196 240 278 342 98 130 158 184 222 158 206 252 292 346 65 164 212 258 300 366 102 136 166 192 232 158 206 252 292 356 65 164 212 258 300 366 102 136 166 192 232 158 206 256 294 352 66 176 228 278 322 392 108 140 174 202 244 160 210 258 298 354 67 188 244 300 346 422 1112 148 180 210 252 162 212 258 300 366 66 202 264 322 374 452 118 152 188 218 262 164 212 268 300 366 69 218 284 346 402 486 120 158 198 218 262 164 214 262 302 302 360 69 218 284 346 402 486 120 158 198 228 272 164 214 24 264 304 362 70 234 306 374 434 524 126 164 202 236 280 166 216 264 306 362 71 252 328 404 468 564 130 172 208 244 288 166 218 266 308 362 72 270 354 434 504 606 134 176 216 250 298 166 218 266 308 362 73 290 380 486 564 606 134 176 216 250 298 166 218 266 308 362 73 290 380 468 542 660 138 160 222 258 308 166 218 266 308 362 73 290 380 486 504 606 134 176 216 250 298 166 218 266 308 364 74 312 408 502 584 699 140 186 228 264 314 166 218 266 308 362 75 340 444 544 544 562 650 138 180 222 258 308 166 218 266 308 362 75 340 444 544 544 569 690 140 186 228 264 314 166 218 266 308 362 75 340 444 544 544 569 690 140 186 228 264 314 166 218 266 308 362 75 340 444 544 544 569 690 140 186 228 264 314 166 218 266 308 362 75 340 444 544 544 569 690 140 186 228 264 314 166 218 266 308 362 75 340 444 544 544 569 690 140 186 228 264 314 166 218 266 308 362 76 340 444 544 544 369 797 152 200 248 288 164 214 262 266 306 306 360 77 396 520 640 745 885 150 196 242 282 332 164 214 262 266 306 306 360 77 396 520 640 745 885 140 198 242 282 332 164 214 262 266 306 306 360 77 396 520 640 745 885 140 198 242 282 332 164 214 262 266 306 306 360 77 396 620 640 745 885 140 180 170 212 246 288 160 208 252 292 340 360 80 500 660 815 949 1121 130 170 212 246 288 160 100 208 252 292 340 340 810 810 810 100 170 212 246 288 154 202 246 288 332 328 328 328 328 328 328 |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 62         132         170         208         242         298         90         118         144         166         202         154         202         248         286         342           63         142         184         224         228         318         94         122         150         176         212         156         204         250         290         346           65         164         212         258         300         366         102         136         166         192         232         158         208         256         294         352           66         176         228         278         322         392         108         140         174         202         244         160         210         258         298         354           67         188         244         300         346         422         112         148         180         210         252         162         212         258         300         356           68         202         264         332         374         4452         118         152         188         218         262         164         212   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 63         142         184         224         228         318         94         122         150         176         212         156         204         250         290         346           64         152         196         240         278         342         98         130         158         184         222         158         206         252         292         332           65         164         212         258         300         366         102         136         166         192         232         158         208         256         294         352           66         176         228         278         322         392         108         140         174         202         244         160         210         258         300         366           67         188         244         300         346         422         111         148         180         210         252         162         212         258         300         366           69         218         284         346         402         486         120         158         198         228         272         164         212<   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 64         152         196         240         278         342         98         130         158         184         222         158         206         252         292         346           65         164         212         228         300         366         102         136         166         192         232         158         208         256         294         354           67         188         244         300         346         422         112         148         180         210         252         162         212         258         300         356           68         202         264         322         374         452         118         152         188         218         262         164         212         258         300         356           69         218         284         346         402         486         120         158         196         228         272         164         212         262         302         360           71         252         328         404         488         564         130         172         208         244         288         166         218   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 65         164         212         258         300         366         102         136         166         192         232         158         208         256         294         352           66         176         228         278         322         392         108         140         174         202         244         160         210         258         298         354           67         188         244         300         346         422         112         148         180         210         252         162         212         228         300         336           68         202         264         322         374         452         118         152         188         218         262         164         212         262         302         300         366           68         202         284         346         402         446         120         158         196         228         272         164         214         264         306         362           70         234         306         374         434         524         126         164         202         236         280         16   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 66         176         228         278         322         392         108         140         174         202         244         160         210         258         298         354           67         188         244         300         346         422         112         148         180         210         252         162         212         258         302         366           68         202         264         322         374         452         118         152         188         218         262         164         212         262         302         360           69         218         284         346         402         486         120         158         196         228         272         164         214         264         304         362           70         234         306         374         434         524         126         164         202         236         280         166         216         264         304         362           71         252         328         404         468         564         130         172         208         244         288         166         21   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 67 188 244 300 346 422 112 148 180 210 252 162 212 258 300 356 68 202 264 322 374 452 118 152 188 218 262 164 212 262 302 360 69 218 284 346 402 486 120 158 196 228 272 164 214 224 224 304 362 70 234 306 374 454 524 128 164 202 236 280 166 216 284 304 362 71 252 272 270 354 454 524 128 564 130 172 208 244 288 166 218 266 308 362 72 270 354 434 504 606 134 176 216 250 298 166 218 266 308 362 73 290 380 468 542 650 138 180 222 258 308 166 218 266 310 364 74 312 408 502 584 699 140 186 228 264 314 166 218 266 310 364 74 312 408 502 584 699 140 186 228 264 314 166 218 266 308 362 75 340 444 544 545 852 755 142 188 234 272 320 164 216 266 308 362 76 366 480 590 687 817 148 194 238 276 328 164 216 266 306 306 360 77 396 620 640 745 885 150 196 242 282 332 164 214 226 266 306 360 79 462 608 751 873 1,033 130 170 210 246 288 160 208 256 296 300 350 79 462 608 751 873 1,033 130 170 210 246 288 160 208 256 296 300 350 360 360 500 660 815 949 1,121 130 172 210 246 288 154 202 246 282 332 86 264 274 276 276 276 276 276 99 11,109 1,305 128 168 210 244 286 150 196 242 282 380 160 20 246 288 332 866 26 829 1,025 1,195 1,101 1,305 128 168 206 242 282 146 190 234 270 312 84 665 67 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 665 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 66 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 66 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 665 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 46 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 46 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 46 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 46 675 891 1,103 1,289 1,511 124 166 206 236 278 282 146 190 234 270 312 84 46 675 891 1,103 1,289 1,511 124 166 206 236 236 278 142 186 226 260 300   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 68         202         264         322         374         452         118         152         188         218         262         164         212         262         302         380           69         218         284         346         402         486         120         158         196         228         272         164         214         284         304         306         362           70         234         306         374         434         524         126         164         202         236         280         166         216         284         306         362           71         252         328         404         468         564         130         172         208         244         288         166         218         266         308         362           72         270         354         434         504         606         134         176         216         250         298         166         218         268         308         362           73         290         380         468         542         650         138         180         222         258         308         16   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 69         218         284         346         402         486         120         158         196         228         272         164         214         224         304         382           70         234         306         374         434         524         126         164         202         236         280         166         216         224         306         308         362           71         252         328         404         468         564         130         172         208         244         288         166         218         266         308         362           72         270         354         434         504         606         134         176         216         250         298         166         218         266         308         364           73         290         380         468         562         650         138         180         222         258         308         166         218         266         308         362           75         340         444         544         632         755         142         188         234         272         320         16   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 70         234         306         374         434         524         126         164         202         236         280         166         216         264         306         362           71         252         328         404         468         564         130         172         208         244         288         166         218         268         308         362           72         270         354         434         504         606         134         176         216         250         298         166         218         268         308         362           73         290         380         468         542         650         138         180         222         258         308         166         218         266         310         364           74         312         408         502         584         699         140         186         228         264         314         166         218         266         330         362           75         340         444         544         632         755         142         188         234         272         320         164         21   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 71         252         328         404         488         564         130         172         208         244         288         166         218         226         308         362           72         270         354         434         504         606         134         176         216         250         298         166         218         228         308         364           73         290         380         468         542         650         138         180         222         258         308         166         218         286         310         364           74         312         408         502         584         699         140         186         228         284         314         166         218         266         308         362           75         340         444         544         632         755         142         188         234         272         320         164         216         266         308         362           76         366         480         590         687         817         148         194         238         276         328         164         21   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 72         270         354         434         504         606         134         176         216         250         298         166         218         268         308         364           73         290         380         468         542         650         138         180         222         258         308         166         218         266         310         364           74         312         408         502         584         699         140         186         228         264         314         166         218         266         308         362           75         340         444         544         632         755         142         188         234         272         320         164         216         266         308         362           76         366         480         550         687         817         148         194         238         276         328         164         216         266         308         362           77         396         520         640         745         885         150         196         242         282         332         164         21   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 73         290         380         468         542         650         138         180         222         258         308         166         218         266         310         364           74         312         408         502         584         699         140         186         228         264         314         166         218         266         308         362           75         340         444         544         632         755         142         188         234         272         320         164         216         266         308         362           76         366         480         590         687         817         148         194         238         276         328         164         216         266         306         380           77         396         520         640         745         885         150         196         242         282         332         164         214         262         304         356           78         428         562         693         807         957         152         200         248         286         338         162         21   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 74         312         408         502         584         699         140         186         228         264         314         166         218         226         308         362           75         340         444         544         632         755         142         188         234         272         320         164         216         266         308         362           76         366         480         500         687         817         148         194         238         276         328         164         214         226         306         300         300           77         396         520         640         745         885         150         196         242         282         332         164         214         266         306         350           78         428         562         693         807         957         152         200         248         286         338         162         212         260         300         350           79         462         608         751         873         1,033         130         170         212         246         286  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 75         340         444         544         632         755         142         188         234         272         320         164         216         266         308         362           76         366         480         590         687         817         148         194         238         276         328         164         216         266         308         360           77         396         520         640         745         885         150         196         242         282         332         164         214         262         304         356           78         428         562         693         807         957         152         200         248         286         338         162         212         260         300         350           79         462         608         751         873         1,033         130         170         210         246         288         160         208         256         296         346           80         500         600         815         949         1,121         130         170         212         246         290         158 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 76         366         480         590         687         817         148         194         238         276         328         164         216         266         306         380           77         396         652         640         745         885         150         196         242         282         332         164         214         262         304         356           78         428         562         693         807         957         152         200         248         286         338         162         212         280         300         350           79         462         608         751         873         1,033         130         170         210         246         288         160         208         256         296         300         360           80         500         660         815         949         1,121         130         170         212         246         288         160         206         252         292         340           81         540         713         881         1,025         1,211         130         172         210         248         288  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 77         396         520         640         745         885         150         196         242         282         332         164         214         262         304         356           78         428         562         693         807         957         152         200         248         286         338         162         212         260         300         350           79         462         608         751         873         1,033         130         170         210         246         288         160         208         256         296         346           80         500         660         815         949         1,121         130         170         212         246         290         158         206         252         292         340           81         500         713         881         1,025         1,211         130         172         210         248         288         154         202         246         288         332           82         582         769         951         1,109         1,305         128         168         210         244         286         150  |       |         |     |                |       |          | 142     | 188     |                |     |          |   | 164   |         |                |         |          |
| 78         428         562         693         807         957         152         200         248         286         338         162         212         260         300         350           79         462         608         751         873         1,033         130         170         210         246         288         160         208         256         296         346           80         500         660         815         949         1,121         130         170         212         246         290         158         206         252         292         340           81         540         713         881         1,025         1,211         130         172         210         246         288         154         202         252         292         340           81         540         713         881         1,025         1,211         130         172         210         248         286         154         202         246         288         332           82         582         769         951         1,109         1,305         128         168         210         244         286         150 <td></td>  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 79         462         608         751         873         1,033         130         170         210         246         288         160         208         256         296         346           80         500         660         815         949         1,121         130         170         212         246         290         158         206         252         292         340           81         540         713         881         1,025         1,211         130         172         210         248         288         154         202         246         288         332           82         582         769         951         1,109         1,305         128         168         210         244         286         150         196         240         278         322           83         626         829         1,025         1,195         1,405         128         166         206         242         282         146         190         234         270         312           84         675         891         1,103         1,289         1,511         124         166         206         236         278 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 80         500         660         815         949         1,121         130         170         212         246         290         158         206         252         292         340           81         540         713         881         1,025         1,211         130         172         210         248         288         154         202         246         288         33           82         582         769         951         1,109         1,305         128         168         210         244         286         150         196         240         278         322           83         626         829         1,025         1,195         1,405         128         166         206         242         282         146         190         234         270         312           84         675         891         1,103         1,289         1,511         124         166         206         236         278         142         186         226         260         300  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 81         540         713         881         1,025         1,211         130         172         210         248         288         154         202         246         288         332           82         582         769         951         1,109         1,305         128         168         210         244         286         150         196         240         278         322           83         626         829         1,025         1,195         1,405         128         166         206         242         282         146         190         234         270         312           84         675         891         1,103         1,289         1,511         124         166         206         236         278         142         186         226         260         300  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 82 582 769 951 1,109 1,305 128 168 210 244 286 150 196 240 278 322<br>83 626 829 1,025 1,195 1,405 128 166 206 242 282 146 190 234 270 312<br>84 675 891 1,103 1,289 1,511 124 166 206 236 278 142 186 226 260 300   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 83 626 829 1,025 1,195 1,405 128 166 206 242 282 146 190 234 270 312<br>84 675 891 1,103 1,289 1,511 124 166 206 236 278 142 186 226 260 300   |       |         |     |                |       |          |         |         |                |     |          |   |       | 202     |                |         |          |
| 84 675 891 1,103 1,289 1,511 124 166 206 236 278 142 186 226 260 300   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
|  |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
| 85 725 959 1,187 1,385 1,623 124 162 200 234 274 138 178 216 250 288   |       |         |     |                |       |          |         |         |                |     |          |   |       |         |                |         |          |
|  | 85    | 725     | 959 | 1,187          | 1,385 | 1,623    | 124     | 162     | 200            | 234 | 274      |   | 138   | 178     | 216            | 250     | 288      |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for Lifetime Premium Payment Option 0 Day Elimination Period Annual Premium Rates with the Requested Rate Increase Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601
Base Certificate with No Inflation Protection

#### Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

|          | Das        | e Certificate | WILLI NO IIIII     | ation Frotec | 11011      |            | Simple iii | ilation Frotec     | uon Ridei  |            |            | Compound   | iiiialioii Fiol | ection Rider |            |
|----------|------------|---------------|--------------------|--------------|------------|------------|------------|--------------------|------------|------------|------------|------------|-----------------|--------------|------------|
| Issue    |            | -             | Benefit Perio      | 4            |            |            |            | Benefit Period     | 4          |            |            |            | Benefit Perio   | 4            |            |
| Age      | 2 Years    | 3 Years       | 4 Years            | 5 Years      | Lifetime   | 2 Years    | 3 Years    | 4 Years            | 5 Years    | Lifetime   | 2 Years    | 3 Years    | 4 Years         | 5 Years      | Lifetime   |
| Age      | 2 10013    | 3 Tears       | <del>4 10013</del> | o rears      | Litetime   | 2 100/3    | 3 rears    | <del>4 10013</del> | o rears    | Liicumo    | Licuis     | 3 rears    | 4 / Cars        | O rears      | Liicanic   |
| <22      | 10         | 12            | 15                 | 15           | 37         | 5          | 7          | 7                  | 10         | 23         | 37         | 46         | 56              | 66           | 157        |
| 22       | 12         | 12            | 15                 | 17           | 42         | 5          | 7          | 7                  | 10         | 23         | 34         | 49         | 59              | 66           | 162        |
| 23       | 12         | 12            | 15                 | 17           | 42         | 5          | 7          | 10                 | 10         | 28         | 37         | 51         | 61              | 71           | 167        |
| 24       | 12         | 15            | 17                 | 17           | 46         | 5          | 7          | 7                  | 12         | 28         | 39         | 51         | 61              | 73           | 171        |
| 25       | 12         | 15            | 17                 | 20           | 46         | 7          | 7          | 10                 | 10         | 32         | 42         | 54         | 64              | 73           | 181        |
| 26       | 12         | 15            | 17                 | 20           | 51         | 7          | 10         | 10                 | 12         | 32         | 44         | 56         | 68              | 78           | 185        |
| 27       | 15         | 17            | 20                 | 22           | 51         | 5          | 7          | 10                 | 12         | 37         | 42         | 56         | 68              | 81           | 194        |
| 28       | 15         | 17            | 20                 | 22           | 56         | 7          | 10         | 12                 | 15         | 37         | 44         | 59         | 71              | 83           | 199        |
| 29       | 15         | 17            | 20                 | 24           | 60         | 7          | 10         | 15                 | 15         | 37         | 46         | 61         | 76              | 86           | 204        |
| 30       | 15         | 20            | 22                 | 24           | 60         | 10         | 10         | 15                 | 17         | 42         | 49         | 64         | 78              | 90           | 218        |
| 31       | 17         | 20            | 22                 | 27           | 65         | 7          | 12         | 15                 | 17         | 42         | 49         | 66         | 76<br>81        | 93           | 222        |
| 32       | 17         | 22            | 24                 | 27           | 69         | 10         | 12         | 15                 | 20         | 46         | 51         | 66         | 83              | 98           | 231        |
| 33       | 17         | 22            | 27                 | 29           | 74         | 12         | 15         | 17                 | 20         | 51         | 56         | 71         | 86              | 100          | 236        |
| 34       | 20         | 24            | 27                 | 32           | 79         | 10         | 15         | 20                 | 20         | 56         | 56         | 71         | 90              | 103          | 245        |
| 35       | 20         | 24            | 29                 | 34           | 83         | 12         | 17         | 20                 | 22         | 60         | 59         | 76         | 93              | 105          | 255        |
| 36       | 22         | 27            | 32                 | 34           | 88         | 12         | 17         | 20                 | 24         | 65         | 59         | 78         | 95              | 112          | 264        |
| 37       | 22         | 27            | 32                 | 37           | 93         | 15         | 20         | 24                 | 27         | 69         | 64         | 81         | 100             | 115          | 273        |
| 38       | 24         | 29            | 34                 | 39           | 102        | 15         | 20         | 24                 | 29         | 69         | 64         | 83         | 100             | 120          | 278        |
| 39       | 24         | 32            | 37                 | 44           | 102        | 17         | 20         | 27                 | 29         | 79         | 68         | 86         | 103             | 120          | 292        |
| 40       | 27         | 34            | 39                 | 46           | 116        | 17         | 20         | 29                 | 32         | 79         | 68         | 88         | 110             | 127          | 292        |
| 41       | 29         | 37            | 42                 | 49           | 120        | 17         | 24         | 32                 | 34         | 88         | 71         | 93         | 115             | 132          | 310        |
| 42       | 32         | 39            | 46                 | 51           | 130        | 20         | 24         | 32                 | 39         | 93         | 73         | 95<br>95   | 117             | 137          | 319        |
| 43       | 32         | 42            | 49                 | 56           | 130        | 20         | 27         | 34                 | 39         | 102        | 78         | 98         | 122             | 142          | 329        |
| 43<br>44 | 32<br>34   | 42<br>44      | 49<br>51           | 61           | 139        | 22         | 27         | 34<br>39           | 39<br>42   |            | 78<br>81   | 103        |                 | 142          | 343        |
| 44<br>45 | 34<br>37   | 44            | 51<br>56           | 64           | 148        | 24         | 32         | 39                 | 42<br>46   | 106<br>116 | 83         | 103        | 127<br>130      | 152          | 343<br>352 |
| 45<br>46 | 37         | 46<br>49      | 59                 | 68           | 171        | 24 27      | 32<br>37   | 39<br>44           | 46<br>51   | 116        | 83<br>86   | 110        | 130             | 152          | 352<br>361 |
| 46<br>47 | 39<br>42   | 49<br>54      | 59<br>64           | 73           |            | 27         | 37         | 44<br>46           | 51         |            | 88         |            | 137             |              |            |
|          |            |               |                    |              | 181        | 29<br>29   |            | 46<br>51           | 54<br>59   | 134        |            | 112        |                 | 161          | 375        |
| 48       | 46         | 56            | 68                 | 78           | 194        |            | 42         |                    |            | 143        | 90         | 120        | 144             | 169          | 389        |
| 49       | 49         | 61            | 73                 | 86           | 208        | 34         | 44         | 54                 | 64         | 153        | 93         | 122        | 149             | 171          | 403        |
| 50       | 51         | 66            | 81                 | 93           | 227        | 37         | 46         | 56                 | 66         | 162        | 98         | 127        | 154             | 178          | 412        |
| 51       | 56         | 71            | 86                 | 100          | 241        | 39         | 51         | 64                 | 71         | 176        | 100        | 130        | 159             | 183          | 426        |
| 52       | 61         | 76            | 93                 | 108          | 259        | 42         | 56         | 68                 | 78         | 190        | 103        | 134        | 164             | 191          | 440        |
| 53       | 66         | 83            | 100                | 115          | 282        | 44         | 59         | 73                 | 86         | 199        | 105        | 139        | 171             | 198          | 449        |
| 54       | 71         | 90            | 108                | 125          | 301        | 49         | 64         | 78                 | 90         | 218        | 110        | 142        | 176             | 203          | 467        |
| 55       | 76         | 98            | 117                | 137          | 329        | 54         | 68         | 86                 | 98         | 227        | 115        | 147        | 181             | 208          | 481        |
| 56       | 83         | 105           | 127                | 147          | 352        | 56         | 73         | 90                 | 105        | 250        | 117        | 154        | 188             | 218          | 495        |
| 57       | 90         | 115           | 139                | 159          | 380        | 59         | 78         | 95                 | 115        | 268        | 120        | 156        | 193             | 225          | 514        |
| 58       | 98         | 125           | 152                | 174          | 412        | 64         | 83         | 103                | 122        | 282        | 125        | 161        | 198             | 230          | 528        |
| 59       | 105        | 134           | 164                | 188          | 449        | 71         | 90         | 112                | 130        | 301        | 127        | 169        | 205             | 237          | 542        |
| 60       | 115        | 147           | 178                | 205          | 486        | 76         | 98         | 120                | 142        | 324        | 132        | 174        | 213             | 247          | 560        |
| 61       | 125        | 159           | 193                | 225          | 528        | 81         | 105        | 130                | 149        | 347        | 137        | 178        | 220             | 252          | 574        |
| 62       | 134        | 174           | 210                | 244          | 574        | 86         | 112        | 137                | 159        | 366        | 142        | 183        | 225             | 259          | 588        |
| 63       | 147        | 188           | 230<br>249         | 266<br>288   | 620        | 90         | 120        | 147                | 169        | 389        | 144<br>149 | 188        | 232             | 266<br>276   | 606        |
| 64       | 159        | 205<br>225    | 249<br>274         |              | 671        | 98         | 127        | 156                | 181        | 412        |            | 193<br>200 | 237             |              | 625        |
| 65       | 174        |               |                    | 315          | 731        | 103        | 134        | 164                | 193        | 440        | 154        |            | 244<br>252      | 284          | 643        |
| 66<br>67 | 188<br>205 | 244<br>264    | 296<br>323         | 342<br>374   | 796<br>861 | 110        | 142        | 176                | 205        | 463        | 156        | 205<br>210 | 252<br>257      | 293          | 657<br>671 |
| 68       | 203        | 288           | 352                | 406          | 935        | 115<br>120 | 152        | 186                | 215<br>227 | 491        | 159<br>164 | 210        | 262             | 298<br>306   | 685        |
| 69       |            | 288<br>313    | 352                | 406          |            | 120        | 159        | 193                | 237        | 514        |            |            | 262             | 310          | 699        |
|          | 240<br>262 | 313           | 415                | 442<br>481   | 1,014      | 132        | 166<br>174 | 205<br>215         | 249        | 537<br>565 | 169<br>171 | 218<br>225 | 269<br>274      | 310          | 717        |
| 70       |            | 340<br>369    |                    |              | 1,097      | 132        |            | 215                | 249<br>259 |            | 171        |            |                 |              |            |
| 71       | 284        |               | 450                | 523          | 1,189      |            | 181        |                    |            | 592        |            | 227        | 281             | 323          | 727        |
| 72       | 306        | 398           | 489                | 567          | 1,291      | 144        | 191        | 235                | 271        | 611        | 176        | 232        | 284             | 327          | 731        |
| 73       | 330        | 433           | 530                | 613          | 1,398      | 149        | 196        | 242                | 281        | 629        | 178        | 232        | 286             | 332          | 736        |
| 74       | 357        | 467           | 572                | 665          | 1,504      | 154        | 203        | 249                | 288        | 653        | 178        | 235        | 288             | 332          | 745        |
| 75       | 391        | 511           | 626                | 726          | 1,643      | 159        | 210        | 259                | 301        | 671        | 181        | 237        | 291             | 337          | 745        |
| 76       | 425        | 557           | 682                | 792          | 1,787      | 164        | 215        | 266                | 308        | 690        | 181        | 237        | 293             | 337          | 750        |
| 77       | 462        | 604           | 743                | 863          | 1,939      | 166        | 222        | 271                | 315        | 708        | 181        | 237        | 291             | 337          | 750        |
| 78       | 501        | 657           | 807                | 938          | 2,106      | 171        | 225        | 279                | 323        | 722        | 178        | 235        | 291             | 335          | 741        |
| 79       | 543        | 714           | 877                | 1,019        | 2,286      | 144        | 191        | 237                | 276        | 616        | 178        | 232        | 286             | 332          | 731        |
| 80       | 591        | 777           | 960                | 1,117        | 2,499      | 147        | 196        | 242                | 281        | 625        | 178        | 235        | 286             | 332          | 731        |
| 81       | 640        | 843           | 1,041              | 1,212        | 2,708      | 149        | 196        | 240                | 281        | 620        | 176        | 230        | 281             | 325          | 713        |
| 82       | 692        | 914           | 1,127              | 1,315        | 2,930      | 149        | 193        | 242                | 279        | 620        | 171        | 222        | 276             | 318          | 694        |
| 83       | 748        | 985           | 1,220              | 1,420        | 3,161      | 147        | 193        | 237                | 279        | 616        | 166        | 220        | 266             | 310          | 676        |
| 84       | 807        | 1,063         | 1,317              | 1,535        | 3,411      | 144        | 193        | 235                | 274        | 606        | 161        | 213        | 257             | 298          | 653        |
| 85       | 870        | 1,146         | 1,420              | 1,657        | 3,675      | 142        | 188        | 232                | 269        | 597        | 156        | 205        | 247             | 286          | 620        |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for 10-Year Premium Payment Option 0 Day Elimination Period Annual Premium Rates with the Requested Rate Increase Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601 Base Certificate with No Inflation Protection Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

|          | Das        | e Certificate | with NO iiii       | ation Frotec | 11011          |            | Simple iii | nation Frotec | uon Ridei  |            |            | Compound   | iiiiatioii Fiot | ection Rider |                |
|----------|------------|---------------|--------------------|--------------|----------------|------------|------------|---------------|------------|------------|------------|------------|-----------------|--------------|----------------|
| Issue    |            | -             | Benefit Perio      | 4            |                |            |            | Benefit Perio | 4          |            |            |            | Benefit Perio   | d            |                |
| Age      | 2 Years    | 3 Years       | 4 Years            | 5 Years      | Lifetime       | 2 Years    | 3 Years    | 4 Years       | 5 Years    | Lifetime   | 2 Years    | 3 Years    | 4 Years         | 5 Years      | Lifetime       |
| Age      | 2 10013    | 3 Tears       | <del>4 10013</del> | o rears      | Litetime       | 2 Todis    | 3 rears    | 4 10013       | o rears    | Liteario   | 2 10013    | 5 rears    | 4 TC013         | O rears      | Liicumo        |
| <22      | 24         | 29            | 34                 | 39           | 97             | 17         | 22         | 27            | 29         | 79         | 161        | 208        | 254             | 296          | 694            |
| 22       | 27         | 32            | 37                 | 42           | 106            | 15         | 22         | 27            | 32         | 79         | 161        | 213        | 259             | 301          | 704            |
| 23       | 27         | 32            | 39                 | 44           | 111            | 17         | 24         | 27            | 32         | 83         | 166        | 218        | 264             | 306          | 717            |
| 24       | 29         | 34            | 42                 | 46           | 116            | 17         | 24         | 29            | 34         | 88         | 169        | 220        | 269             | 310          | 731            |
| 25       | 29         | 37            | 42                 | 49           | 120            | 20         | 24         | 32            | 37         | 93         | 171        | 222        | 276             | 318          | 745            |
| 26       | 32         | 37            | 44                 | 51           | 130            | 20         | 29         | 34            | 39         | 97         | 174        | 230        | 279             | 323          | 754            |
| 27       | 32         | 39            | 46                 | 54           | 134            | 22         | 29         | 37            | 42         | 106        | 178        | 232        | 284             | 330          | 768            |
| 28       | 34         | 42            | 49                 | 56           | 143            | 24         | 32         | 39            | 44         | 111        | 181        | 237        | 291             | 335          | 782            |
| 29       | 37         | 44            | 51                 | 61           | 148            | 24         | 32         | 42            | 46         | 120        | 183        | 240        | 296             | 340          | 796            |
| 30       | 37         | 46            | 56                 | 64           | 157            | 27         | 34         | 42            | 49         | 125        | 188        | 244        | 298             | 345          | 810            |
| 31       | 39         | 49            | 59                 | 66           | 167            | 29         | 37         | 44            | 54         | 130        | 191        | 249        | 303             | 352          | 819            |
| 32       | 42         | 51            | 61                 | 71           | 176            | 29         | 39         | 49            | 56         | 139        | 193        | 252        | 310             | 357          | 833            |
| 33       | 44         | 54            | 64                 | 73           | 185            | 32         | 42         | 51            | 61         | 148        | 196        | 257        | 315             | 364          | 847            |
| 34       | 46         | 56            | 68                 | 78           | 194            | 32         | 44         | 54            | 64         | 157        | 200        | 262        | 318             | 369          | 861            |
| 35       | 49         | 61            | 71                 | 83           | 204            | 34         | 44         | 59            | 66         | 167        | 203        | 264        | 325             | 374          | 875            |
| 36       | 51         | 64            | 76                 | 88           | 218            | 37         | 49         | 61            | 71         | 171        | 205        | 269        | 330             | 381          | 884            |
| 37       | 54         | 66            | 81                 | 93           | 231            | 39         | 54         | 64            | 73         | 181        | 210        | 274        | 335             | 386          | 898            |
| 38       | 56         | 71            | 86                 | 98           | 241            | 42         | 54<br>54   | 66            | 73<br>78   | 194        | 213        | 274        | 337             | 393          | 912            |
| 39       | 59         | 73            | 90                 | 103          | 255            | 42         | 59<br>59   | 71            | 7 6<br>86  | 208        | 215        | 281        | 342             | 393          | 926            |
| 40       | 61         | 73<br>78      | 95                 | 110          | 268            | 49         | 64         | 76            | 88         | 218        | 220        | 286        | 342             | 403          | 940            |
| 41       | 66         | 83            | 100                | 115          | 287            | 51         | 66         | 81            | 95         | 210        | 222        | 288        | 354             | 411          | 949            |
| 42       | 68         | 88            | 105                | 122          | 301            | 54         | 68         | 86            | 100        | 245        | 225        | 293        | 359             | 411          | 963            |
| 43       | 73         | 93            | 112                | 130          | 319            | 56         | 73         | 90            | 105        | 255        | 223        | 293        | 364             | 420          | 972            |
| 43       | 73<br>78   | 98            | 120                | 137          | 338            | 59         | 73<br>78   | 90<br>95      | 112        | 268        | 230        | 301        | 367             | 420          | 986            |
| 45       | 7 o<br>81  | 103           | 120                | 147          | 356            | 64         | 83         | 100           | 117        | 287        | 235        | 306        | 371             | 420          | 995            |
| 45<br>46 | 86         | 110           | 134                | 154          | 375            | 68         | 83<br>88   | 100           | 117        | 301        | 235        | 308        | 371             | 430          |                |
| 46<br>47 | 90         |               |                    | 164          |                | 71         | 93         |               |            |            |            | 308        | 376             | 440          | 1,009          |
|          | 90<br>95   | 117           | 142                |              | 398            | 71         |            | 112           | 132        | 319        | 240        |            |                 |              | 1,018          |
| 48       |            | 122           | 149                | 174          | 421            |            | 100        | 120           | 139        | 333        | 242        | 315        | 386             | 445          | 1,028          |
| 49       | 103        | 130           | 159                | 183          | 444            | 78         | 105        | 127           | 149        | 356        | 244        | 320        | 389             | 452          | 1,037          |
| 50       | 108        | 139           | 169                | 196          | 472            | 86         | 110        | 134           | 156        | 370        | 247        | 320        | 393             | 455          | 1,046          |
| 51       | 115        | 147           | 178                | 205          | 500            | 88         | 117        | 142           | 166        | 393        | 247        | 325        | 398             | 462          | 1,055          |
| 52       | 122        | 156           | 188                | 220          | 528            | 93         | 122        | 152           | 174        | 417        | 249        | 327        | 401             | 464          | 1,065          |
| 53       | 130        | 166           | 200                | 232          | 560            | 98         | 130        | 159           | 186        | 435        | 252        | 330        | 406             | 469          | 1,074          |
| 54       | 137        | 176           | 213                | 247          | 592            | 105        | 137        | 169           | 196        | 458        | 254        | 332        | 408             | 472          | 1,078          |
| 55       | 144        | 186           | 227                | 264          | 629            | 110        | 144        | 176           | 205        | 481        | 257        | 335        | 411             | 474          | 1,083          |
| 56       | 154        | 198           | 242                | 279          | 666            | 115        | 152        | 186           | 218        | 504        | 257        | 337        | 411             | 479          | 1,092          |
| 57       | 164        | 210           | 257                | 298          | 708            | 120        | 159        | 196           | 227        | 528        | 259        | 337        | 415             | 479          | 1,092          |
| 58       | 174        | 222           | 274                | 315          | 750            | 127        | 169        | 203           | 240        | 551        | 259        | 340        | 415             | 484          | 1,097          |
| 59       | 183        | 237           | 291                | 337          | 796            | 134        | 174        | 213           | 247        | 574        | 262        | 340        | 415             | 481          | 1,097          |
| 60       | 196        | 254           | 310                | 359          | 847            | 139        | 181        | 225           | 262        | 602        | 262        | 342        | 418             | 486          | 1,106          |
| 61       | 208        | 269           | 327                | 381          | 893            | 144        | 191        | 235           | 271        | 629        | 262        | 342        | 420             | 486          | 1,106          |
| 62       | 220        | 286           | 349<br>371         | 406          | 949            | 152        | 198        | 244           | 284        | 653        | 262        | 342<br>342 | 420             | 486          | 1,102          |
| 63       | 235<br>247 | 303<br>320    | 393                | 430<br>455   | 1,004          | 156        | 205        | 252           | 293        | 676        | 259        | 342        | 418             | 486<br>486   | 1,102          |
| 64       |            | 342           |                    |              | 1,060          | 164        | 215        | 262           | 306        | 699        | 262        |            | 418             |              | 1,102          |
| 65       | 262<br>279 |               | 418                | 484          | 1,125          | 169        | 220<br>227 | 271           | 318        | 722        | 262        | 340        | 418             | 486          | 1,097          |
| 66<br>67 | 293        | 362<br>384    | 442<br>469         | 513<br>545   | 1,189<br>1,259 | 174<br>178 | 232        | 281<br>288    | 327<br>335 | 745<br>759 | 259<br>257 | 340<br>337 | 418<br>413      | 484<br>479   | 1,092<br>1,078 |
|          | 310        | 406           | 496                | 577          | 1,328          | 183        | 232        | 200           | 342        | 778        | 257        | 335        | 411             | 479          |                |
| 68       |            | 406           | 496<br>525         |              |                | 183        | 240<br>244 | 303           | 342<br>349 |            |            | 330        | 411             | 477          | 1,069          |
| 69       | 330<br>347 | 430<br>455    | 525<br>557         | 611<br>648   | 1,402          | 191        | 244        | 303           | 349<br>357 | 796        | 252<br>249 | 330        | 408             | 472<br>467   | 1,060<br>1.046 |
| 70       | 347<br>367 | 455<br>481    |                    |              | 1,486          | 193        |            | 308           | 362        | 805        |            | 327        | 403<br>396      |              |                |
| 71       |            |               | 591                | 687          | 1,569          |            | 252        |               |            | 819        | 247        |            |                 | 459          | 1,032          |
| 72       | 389        | 508<br>538    | 626                | 728          | 1,657          | 193        | 257        | 315           | 367        | 833        | 242        | 318        | 391<br>384      | 452          | 1,018          |
| 73       | 411        |               | 662                | 770          | 1,754          | 196        | 259        | 318           | 371        | 833        | 237        | 313        |                 | 445          | 995            |
| 74       | 433        | 567           | 699                | 814          | 1,847          | 198        | 262        | 320           | 374        | 838        | 232        | 308        | 376             | 437          | 977            |
| 75       | 462        | 606           | 745                | 868          | 1,962          | 200        | 262        | 325           | 376        | 842        | 230        | 303        | 371             | 430          | 958            |
| 76       | 494        | 648           | 797                | 926          | 2,092          | 198        | 262        | 325           | 379        | 847        | 222        | 293        | 362             | 420          | 935            |
| 77       | 525        | 689           | 851                | 987          | 2,226          | 200        | 264        | 325           | 381        | 852        | 220        | 288        | 354             | 413          | 912            |
| 78       | 560        | 736           | 907                | 1,056        | 2,374          | 200        | 264        | 327           | 381        | 852        | 213        | 281        | 347             | 401          | 889            |
| 79       | 596        | 785           | 970                | 1,129        | 2,536          | 169        | 225        | 276           | 320        | 717        | 210        | 274        | 335             | 391          | 861            |
| 80       | 640        | 843           | 1,041              | 1,215        | 2,721          | 166        | 222        | 276           | 320        | 708        | 203        | 266        | 330             | 381          | 838            |
| 81       | 684        | 902           | 1,117              | 1,300        | 2,911          | 166        | 220        | 269           | 315        | 699        | 198        | 259        | 318             | 369          | 810            |
| 82       | 731        | 965           | 1,195              | 1,396        | 3,115          | 164        | 218        | 266           | 310        | 690        | 193        | 252        | 308             | 354          | 778            |
| 83       | 782        | 1,034         | 1,281              | 1,493        | 3,328          | 161        | 213        | 262           | 306        | 676        | 186        | 242        | 296             | 342          | 750            |
| 84       | 838        | 1,107         | 1,371              | 1,601        | 3,559          | 156        | 208        | 257           | 301        | 662        | 178        | 232        | 284             | 327          | 713            |
| 85       | 897        | 1,185         | 1,469              | 1,716        | 3,809          | 154        | 203        | 249           | 291        | 643        | 171        | 222        | 269             | 310          | 676            |

#### Comprehensive Tax Qualified Certificate

#### Group Rates for 20-Year Premium Payment Option 0 Day Elimination Period Annual Premium Rates with the Requested Rate Increase Rates per \$10 Daily Benefit

Certificate: GRP11-342-MA-PA-601 Base Certificate with No Inflation Protection Rider: GRP11-SIP-PA-998 Simple Inflation Protection Rider

|            | 240        | 0 00111110410 | *************************************** | ation Frotec |            |            | Omipio mi | iation Frotec        |            |            |   |       | oopoua     | iiiialioii Fiol |            |            |
|------------|------------|---------------|---|--------------|------------|------------|-----------|----------------------|------------|------------|---|-------|------------|-----------------|------------|------------|
| Issue      |            | -             | Benefit Perio                           | 4            |            |            |           | Benefit Period       | 4          |            |   |       |            | Benefit Period  | 4          |            |
| <u>Age</u> | 2 Years    | 3 Years       | 4 Years                                 | 5 Years      | Lifetime   | 2 Years    | 3 Years   | 4 Years              | 5 Years    | Lifetime   | 9 | Years | 3 Years    | 4 Years         | 5 Years    | Lifetime   |
| Ago        | Z rours    | 3 Tears       | <del>4 10013</del>                      | o rears      | Litetime   | 2 10013    | 3 rears   | 4 Tours              | o rears    | Litearie   | = | rours | o rears    | 4 TG013         | O rears    | Liicanic   |
| <22        | 17         | 20            | 24                                      | 27           | 65         | 10         | 12        | 15                   | 20         | 51         |   | 103   | 134        | 164             | 191        | 444        |
| 22         | 17         | 20            | 24                                      | 27           | 69         | 10         | 15        | 17                   | 22         | 51         |   | 105   | 137        | 166             | 196        | 454        |
| 23         | 17         | 22            | 24                                      | 29           | 74         | 12         | 15        | 20                   | 22         | 51         |   | 108   | 139        | 171             | 198        | 458        |
| 24         | 20         | 22            | 27                                      | 29           | 74         | 12         | 17        | 20                   | 24         | 60         |   | 108   | 142        | 174             | 203        | 472        |
| 25         | 20         | 24            | 29                                      | 32           | 79         | 12         | 17        | 20                   | 24         | 60         |   | 110   | 144        | 176             | 205        | 481        |
| 26         | 20         | 24            | 29                                      | 34           | 83         | 15         | 17        | 22                   | 24         | 65         |   | 115   | 147        | 181             | 208        | 486        |
| 27         | 22         | 27            | 32                                      | 37           | 88         | 15         | 17        | 22                   | 24         | 69         |   | 115   | 149        | 183             | 210        | 495        |
| 28         | 22         | 27            | 32                                      | 37           | 93         | 15         | 20        | 24                   | 29         | 74         |   | 117   | 154        | 188             | 218        | 504        |
| 29         | 24         | 29            | 34                                      | 39           | 97         | 15         | 20        | 27                   | 29         | 79         |   | 117   | 154        | 191             | 220        | 514        |
| 30         | 24         | 29            | 37                                      | 42           | 102        | 17         | 24        | 27                   | 32         | 83         |   | 122   | 159        | 193             | 222        | 523        |
| 31         | 27         | 32            | 39                                      | 44           | 102        | 17         | 24        | 29                   | 34         | 88         |   | 122   | 161        | 193             | 227        | 532        |
| 32         | 27         | 34            | 39                                      | 46           | 116        | 20         | 24        | 32                   | 37         | 88         |   | 127   | 164        | 200             | 232        | 537        |
| 33         | 29         | 37            | 42                                      | 49           | 120        | 20         | 24        | 34                   | 39         | 97         |   | 127   | 166        | 205             | 235        | 551        |
| 34         | 29         | 37            | 44                                      | 51           | 130        | 20         | 29        | 37                   | 42         | 97         |   | 130   | 171        | 203             | 240        | 555        |
| 35         | 32         | 39            | 46                                      | 54           | 134        | 22         | 29        | 39                   | 44         | 106        |   | 132   | 174        | 210             | 244        | 565        |
| 36         | 34         | 42            | 51                                      | 59           | 143        | 24         | 32        | 39                   | 44         | 111        |   | 134   | 176        | 213             | 247        | 574        |
| 37         | 34         | 44            | 54                                      | 61           | 153        | 27         | 34        | 42                   | 49         | 116        |   | 137   | 178        | 218             | 252        | 583        |
| 38         | 37         | 44            | 5 <del>4</del><br>56                    | 64           | 157        | 29         | 37        | 44                   | 51         | 130        |   | 139   | 181        | 220             | 252        | 597        |
| 39         | 39         | 49            | 59                                      | 68           | 167        | 29         | 39        | 46                   | 54         | 134        |   | 142   | 183        | 225             | 257        | 602        |
| 40         | 42         | 51            | 64                                      | 73           | 181        | 32         | 42        | 49                   | 56         | 139        |   | 142   | 188        | 227             | 262        | 606        |
| 41         | 44         | 56            | 66                                      | 76           | 190        | 32         | 42        | 54                   | 64         | 148        |   | 144   | 188        | 232             | 269        | 620        |
| 42         | 44         | 59            | 71                                      | 81           | 190        | 34         | 42        | 5 <del>4</del><br>56 | 66         | 157        |   | 147   | 191        | 235             | 271        | 629        |
| 43         | 49         | 61            | 76                                      | 86           | 213        | 37         | 49        | 59                   | 71         | 167        |   | 149   | 196        | 237             | 271        | 634        |
| 43         | 51         | 66            | 78                                      | 90           | 222        | 39         | 51        | 64                   | 76         | 181        |   | 152   | 198        | 242             | 276        | 648        |
| 45         | 54         | 68            | 83                                      | 98           | 236        | 44         | 56        | 68                   | 78         | 190        |   | 154   | 200        | 242             | 284        | 657        |
| 45<br>46   | 54<br>59   | 73            | 88<br>88                                | 103          | 250<br>250 | 44         | 59        | 73                   | 78<br>83   | 190        |   | 154   | 200        | 247             | 284<br>288 | 662        |
| 46<br>47   | 59<br>61   | 73<br>78      | 95                                      |              |            | 44         | 61        | 73<br>76             | 83<br>88   |            |   |       |            |                 | 288<br>291 |            |
|            |            |               |   | 110          | 264        | 46         |           |                      | 88<br>95   | 213        |   | 159   | 205        | 252             |            | 671        |
| 48         | 66         | 83            | 100                                     | 115          | 282        |            | 66        | 81                   |            | 222        |   | 159   | 208        | 257             | 296        | 680        |
| 49         | 68         | 88            | 108                                     | 122          | 301        | 54         | 68        | 83                   | 100        | 231        |   | 164   | 213        | 259             | 301        | 685        |
| 50         | 73         | 93            | 112                                     | 132          | 319        | 56         | 73        | 90                   | 105        | 245        |   | 164   | 215        | 264             | 303        | 694        |
| 51         | 78         | 100           | 120                                     | 139          | 338        | 59         | 78        | 98                   | 112        | 264        |   | 166   | 218        | 266             | 308        | 704        |
| 52         | 83         | 105           | 130                                     | 149          | 356        | 64         | 83        | 100                  | 117        | 282        |   | 169   | 222        | 269             | 313        | 717        |
| 53         | 88         | 112           | 137                                     | 159          | 380        | 68         | 88        | 108                  | 125        | 296        |   | 171   | 225        | 274             | 315        | 722        |
| 54         | 93         | 120           | 147                                     | 169          | 407        | 73         | 93        | 115                  | 134        | 310        |   | 174   | 227        | 276             | 320        | 727        |
| 55         | 100        | 130           | 156                                     | 181          | 435        | 76         | 98        | 122                  | 142        | 324        |   | 176   | 227        | 281             | 325        | 736        |
| 56         | 108        | 137           | 169                                     | 193          | 463        | 81         | 105       | 127                  | 149        | 343        |   | 176   | 232        | 281             | 327        | 745        |
| 57         | 115        | 147           | 178                                     | 208          | 491        | 83         | 110       | 137                  | 156        | 366        |   | 178   | 235        | 286             | 330        | 754        |
| 58         | 122        | 159           | 193                                     | 222          | 528        | 90         | 115       | 142                  | 166        | 384        |   | 181   | 235        | 288             | 335        | 759        |
| 59         | 132        | 169           | 205                                     | 240          | 560        | 93         | 122       | 152                  | 174        | 407        |   | 181   | 240        | 293             | 337        | 768        |
| 60         | 142        | 181           | 222                                     | 257          | 602        | 98         | 130       | 159                  | 183        | 426        |   | 183   | 242        | 296             | 342        | 778        |
| 61         | 152        | 196           | 237                                     | 274          | 643        | 103        | 134       | 169                  | 196        | 449        |   | 186   | 244        | 301             | 347        | 787        |
| 62         | 161        | 208           | 254<br>274                              | 296          | 690        | 110        | 144       | 176                  | 203        | 467        |   | 188   | 247        | 303             | 349        | 791        |
| 63         | 174        | 225           |   | 315          | 736        | 115        | 149       | 183                  | 215        | 491        |   | 191   | 249        | 306             | 354        | 801        |
| 64         | 186        | 240           | 293                                     | 340          | 791        | 120        | 159       | 193                  | 225        | 514        |   | 193   | 252        | 308             | 357        | 801        |
| 65         | 200        | 259<br>279    | 315                                     | 367          | 847        | 125        | 166       | 203                  | 235        | 537        |   | 193   | 254        | 313             | 359        | 815        |
| 66<br>67   | 215<br>230 | 279           | 340<br>367                              | 393<br>423   | 907<br>977 | 132<br>137 | 171       | 213                  | 247<br>257 | 565<br>583 |   | 196   | 257<br>259 | 315<br>315      | 364<br>367 | 819        |
|            |            |               | 393                                     |              |            | 137        | 181       | 220                  | 257<br>266 |            |   | 198   |            | 320             | 367        | 824<br>833 |
| 68         | 247        | 323           |   | 457          | 1,046      |            | 186       | 230                  |            | 606        |   | 200   | 259        |                 |            |            |
| 69         | 266        | 347           | 423                                     | 491          | 1,125      | 147        | 193       | 240                  | 279        | 629        |   | 200   | 262        | 323             | 371        | 838        |
| 70         | 286        | 374           | 457                                     | 530          | 1,213      | 154        | 200       | 247                  | 288        | 648        |   | 203   | 264        | 323             | 374        | 838        |
| 71         | 308        | 401           | 494                                     | 572          | 1,305      | 159        | 210       | 254                  | 298        | 666        |   | 203   | 266        | 325             | 376        | 838        |
| 72         | 330        | 433           | 530                                     | 616          | 1,402      | 164        | 215       | 264                  | 306        | 690        |   | 203   | 266        | 327             | 376        | 842        |
| 73         | 354        | 464           | 572                                     | 662          | 1,504      | 169        | 220       | 271                  | 315        | 713        |   | 203   | 266        | 325             | 379        | 842        |
| 74         | 381        | 499           | 613                                     | 714          | 1,615      | 171        | 227       | 279                  | 323        | 727        |   | 203   | 266        | 325             | 376        | 838        |
| 75         | 415        | 543           | 665                                     | 772          | 1,745      | 174        | 230       | 286                  | 332        | 741        |   | 200   | 264        | 325             | 376        | 838        |
| 76         | 447        | 587           | 721                                     | 838          | 1,888      | 181        | 237       | 291                  | 337        | 759        |   | 200   | 264        | 325             | 374        | 833        |
| 77         | 484        | 635           | 782                                     | 909          | 2,046      | 183        | 240       | 296                  | 345        | 768        |   | 200   | 262        | 320             | 371        | 824        |
| 78         | 523        | 687           | 846                                     | 985          | 2,212      | 186        | 244       | 303                  | 349        | 782        |   | 198   | 259        | 318             | 367        | 810        |
| 79         | 565        | 743           | 917                                     | 1,066        | 2,388      | 159        | 208       | 257                  | 301        | 666        |   | 196   | 254        | 313             | 362        | 801        |
| 80         | 611        | 807           | 995                                     | 1,158        | 2,592      | 159        | 208       | 259                  | 301        | 671        |   | 193   | 252        | 308             | 357        | 787        |
| 81         | 660        | 870           | 1,075                                   | 1,251        | 2,800      | 159        | 210       | 257                  | 303        | 666        |   | 188   | 247        | 301             | 352        | 768        |
| 82         | 711        | 938           | 1,161                                   | 1,354        | 3,018      | 156        | 205       | 257                  | 298        | 662        |   | 183   | 240        | 293             | 340        | 745        |
| 83         | 765        | 1,012         | 1,251                                   | 1,459        | 3,249      | 156        | 203       | 252                  | 296        | 653        |   | 178   | 232        | 286             | 330        | 722        |
| 84         | 824        | 1,088         | 1,347                                   | 1,574        | 3,494      | 152        | 203       | 252                  | 288        | 643        |   | 174   | 227        | 276             | 318        | 694        |
| 85         | 885        | 1,171         | 1,449                                   | 1,691        | 3,754      | 152        | 198       | 244                  | 286        | 634        |   | 169   | 218        | 264             | 306        | 666        |

Filing Company:

MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

Pennsylvania

Product Name: Long-Term Care

State:

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

#### **Supporting Document Schedules**

| Satisfied - Item: | Transmittal Letter (A&H)   |
|-------------------|--|
| Comments:         |  |
| Attachment(s):    | PA_Cover Letter_MedAmerica_Group_LRRS_20200110.pdf   |
| Item Status:      |  |
| Status Date:      |  |
| Bypassed - Item:  | Actuarial Certification (A&H)  |
| Bypass Reason:    | Not applicable as this is not a form filing.   |
| Attachment(s):    |  |
| Item Status:      |  |
| Status Date:      |  |
| Satisfied - Item: | Actuarial Memorandum and Explanatory Information (A&H)   |
| Comments:         |  |
| Attachment(s):    | PA_ActMemo_MedAmerica_Group_LRRS_20200110.pdf PA_Supplement_MedAmerica_Group_LRRS_20200110.pdf |
| Item Status:      |  |
| Status Date:      |  |
| Bypassed - Item:  | Advertisements (A&H)   |
| Bypass Reason:    | Not applicable as this is not a form filing.   |
| Attachment(s):    |  |
| Item Status:      |  |
| Status Date:      |  |
| Satisfied - Item: | Authorization to File (A&H)  |
| Comments:         |  |
| Attachment(s):    | Authorization to file MedAmerica 20191217.pdf  |
| Item Status:      |  |
| Status Date:      |  |
| Bypassed - Item:  | Insert Page Explanation (A&H)  |
| Bypass Reason:    | Not applicable as this is not a form filing.   |
| Attachment(s):    |  |
| Item Status:      |  |

| SERFF Tracking #:    | MILL-132021942 | State Tracking #:            | MILL-132021942                        |                  | Company Tracking #:   | SERIES 11 GROUP (MEDAMERICA) |
|----------------------|----------------|------------------------------|---------------------------------------|------------------|-----------------------|------------------------------|
| State:               | Pennsylvania   |                              |                                       | Filing Company:  | MedAmerica Insura     | ance Company                 |
| TOI/Sub-TOI:         | LTC03G Group   | Long Term Care/LTC03G.00     | 01 Qualified                          |                  |                       |                              |
| Product Name:        | Long-Term Car  |                              |                                       |                  |                       |                              |
| Project Name/Number: | MedAmerica N   | ationwide 2020 Rate Increase | e/145MAI01-30.07                      |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Satisfied - Item:    |                | Rate Table (A&H)             |                                       |                  |                       |                              |
| Comments:            |                | Rate tables are attached     | d on the Rate/Ru                      | le Schedule tab. |                       |                              |
| Attachment(s):       |                |                              |                                       |                  |                       |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Bypassed - Item:     |                | Replacement Form with        | Highlighted Cha                       | nges (A&H)       |                       |                              |
| Bypass Reason:       |                | Not applicable as this is    | not a form filing.                    |                  |                       |                              |
| Attachment(s):       |                |                              |                                       |                  |                       |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Bypassed - Item:     |                | Advertisement Complian       | nce Certification                     |                  |                       |                              |
| Bypass Reason:       |                | Not applicable as this is    | not an advertise                      | ment filing.     |                       |                              |
| Attachment(s):       |                | •                            |                                       |                  |                       |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Bypassed - Item:     |                | Reserve Calculation (A&      | %H)                                   |                  |                       |                              |
| Bypass Reason:       |                | Not applicable as this is    | not a form filing.                    |                  |                       |                              |
| Attachment(s):       |                |                              |                                       |                  |                       |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Bypassed - Item:     |                | Variability Explanation (    | A&H)                                  |                  |                       |                              |
| Bypass Reason:       |                | Not applicable as this is    | · · · · · · · · · · · · · · · · · · · |                  |                       |                              |
| Attachment(s):       |                |                              | <u> </u>                              |                  |                       |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
| Satisfied - Item:    |                | Numerical Data in Exce       | <u> </u>                              |                  |                       |                              |
| Comments:            |                |                              |                                       |                  |                       |                              |
| Attachment(s):       |                | PA_Exhibits and Supple       | ement Attachmen                       | its_MedAmerica P | Premier_20200110.xlsb |                              |
| Item Status:         |                |                              |                                       |                  |                       |                              |
| Status Date:         |                |                              |                                       |                  |                       |                              |
|                      |                |                              |                                       |                  |                       |                              |

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

Product Name: Long-Term Care

**Project Name/Number:** MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

| Satisfied - Item: | Sample Policyholder Notification Letter   |
|-------------------|---|
| Comments:         |   |
| Attachment(s):    | TEMPLATE MAPA Legacy-Assumed PH Letter 9.30.19.pdf TEMPLATE MAPA Legacy-Assumed CNF 9.30.19.pdf |
| Item Status:      |   |
| Status Date:      |   |

State: Pennsylvania Filing Company: MedAmerica Insurance Company

TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified

**Product Name:** Long-Term Care

Project Name/Number: MedAmerica Nationwide 2020 Rate Increase/145MAI01-30.07

Attachment PA\_Exhibits and Supplement Attachments\_MedAmerica\_Premier\_20200110.xlsb is not a PDF document and cannot be reproduced here.



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January 10, 2020

Honorable Jessica K. Altman Insurance Commissioner Pennsylvania Insurance Department (Department)

Via SERFF

Re: MedAmerica Insurance Company (MedAmerica)
Company NAIC # 69515
SERFF Tracking # MILL-132021942
Series 11 Group

Comprehensive Form GRP11-341-MA-PA-601
Comprehensive Certificate GRP11-342-MA-PA-601

#### Dear Commissioner Altman:

On behalf of the company, we are submitting the referenced rate filing for your review. This is an existing product(s) that provides long-term care coverage on a group basis. The company issued this product(s) in Pennsylvania from July 1, 2004 to October 1, 2007 and is no longer marketed in any jurisdiction. The company is making a similar request on the individual product(s) in a concurrent filing (SERFF Tracking # MILL-132217744).

The company is requesting a premium rate increase on the above-listed form(s), including all associated riders. The need for a premium rate increase is due to emerging and projected experience running more adverse than originally expected.

This rate increase request is a follow-up to two prior nationwide requests. However, because this jurisdiction did not allow full implementation of the prior requested increases, the rate level being requested in this follow-up filing was determined to be actuarially equivalent as described in Appendix B to the enclosed actuarial memorandum. As with the prior request, the requested rate increase varies by benefit period. The following table provides the average prior, requested, and cumulative rate increases for the above-listed form(s) by benefit period.

#### Pennsylvania – MedAmerica Rate Increase Request

| Policy Form<br>Cohort  | Benefit<br>Period | Prior<br>Increase | Requested Increase | Cumulative Increase |
|------------------------|-------------------|-------------------|--------------------|---------------------|
| Series 11 Group        | Non-Lifetime      | 100.1             | 22.1               | 144                 |
| Series 11 Group        | Lifetime          | 100.1             | 131.2              | 363                 |
| Average <sup>[1]</sup> |                   | 100.1             | 22.1               | 144                 |

<sup>[1]</sup> As of December 31, 2018 and excludes policies assumed to be paid up prior to implementation of the requested rate increase.

#### Offices in Principal Cities Worldwide

This work product was prepared solely to provide assistance to MedAmerica. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends recipient be aided by its own actuary or other qualified professional when reviewing the Milliman work product.



The prior increase reflects the cumulative increase of three prior increase(s) that were filed for use in May 2010, September 2017, and December 2018 on the above-listed form(s). The company is seeking this current rate increase request to help alleviate the adverse performance on this block of business.

As stated in the enclosed actuarial memorandum, a larger rate increase is justified on this block of business. If it is the Department's position to only allow future rate increases if experience deteriorates from the current most-likely projections used in this filing, the company respectfully requests that the Department notify them and allow the company to revise the current rate increase request.

Similar to the prior increase(s), the company will offer insureds affected by the premium increase the option of reducing their policy benefits to provide flexibility of choice for those insureds who wish to maintain a premium level reasonably similar to what they were paying prior to the rate increase. The company will offer a contingent benefit upon lapse to insureds that trigger a substantial rate increase. Additionally, the company will voluntarily offer a contingent benefit upon lapse to insureds affected by the rate increase, even if the increase is not considered substantial.

The following electronic items are included with this submission:

- cover letter
- letter from the company authorizing submission of this filing on its behalf
- actuarial memorandum
- supplement to the actuarial memorandum
- · exhibits and attachments in Excel
- current and proposed premium rate schedules
- sample policyholder notification letter\*

\*Please note that in the future slight variations in language may occur that do not materially change the information being provided to the policyholder. It is our understanding that such variations do not need to be filed with the Department.

No filing fee is required for this submission.

The contact person for this filing is:

Michael Emmert, ASA, MAAA Associate Actuary Milliman, Inc. 8500 Normandale Lake Blvd., Suite 1850 Minneapolis, MN 55437 (952) 820-3116 michael.emmert@milliman.com

Thank you for your assistance in reviewing this filing.

Respectfully.

Missy Gordon, FSA, MAAA Principal and Consulting Actuary

MAG/dpl

**Enclosures** 

Address: 165 Court Street. Rochester. New York 14647

#### **Series 11 and Prior Actuarial Memorandum**

#### January 10, 2020

<u>Product</u> <u>Number</u>

Series 11 Group

Comprehensive FormGRP11-341-MA-PA-601Comprehensive CertificateGRP11-342-MA-PA-601

MedAmerica Insurance Company (MedAmerica) is requesting a rate increase on the above-listed long-term care policy form(s). The company issued this policy form(s) in Pennsylvania from July 2004 through October 2007 and is no longer marketing it in any jurisdiction.

Nationwide, MedAmerica and its affinity partners are requesting a premium rate increase that varies by benefit period, except where limited by regulatory restrictions or the limited amount of in-force business. This actuarial memorandum captures the pooled nationwide experience of the above-listed policy form(s) as well as similar individual and group policy forms of the same product series issued nationwide by MedAmerica and its affinity partners.

#### 1. Purpose of Filing

This actuarial memorandum has been prepared for the purpose of demonstrating that the requested rate increase discussed in Section 2 meets the minimum requirements of the applicable sections of the 2014 National Association of Insurance Commissioners (NAIC) Long-Term Care Insurance Model Regulation (Model Regulation). The enclosed supplement to the actuarial memorandum demonstrates compliance with the applicable regulatory requirements of this jurisdiction, to the extent they differ from the Model Regulation, and includes other commonly requested information of this jurisdiction. It may not be suitable for other purposes.

#### 2. Requested Rate Increase

The company is requesting a rate increase that varies by benefit period. The rate increase levels were determined to vary by benefit period to better align the rate increase with the adverse experience. Appendix A to this memorandum provides a description of the development of and justification for the assumptions used in this filing, which were used to analyze the adverse experience.

This rate increase request is a follow-up to two prior nationwide requests. In jurisdictions that did not allow full implementation of the prior requested increases, the company is requesting a follow-up increase to achieve an actuarially equivalent lifetime loss ratio to the prior requests. Appendix B to this memorandum provides additional details on the development of and justification for the requested rate increase, including a detailed description of how actuarial equivalence was determined and a demonstration that the requested rate increase does not recoup past losses.

The table below provides the average prior, requested, and cumulative increases by policy form cohort and benefit period based on the nationwide distribution business. The enclosed cover letter provides similar information based on the jurisdiction-specific distribution and discloses the requested rate increase in this jurisdiction.

Nationwide Average<sup>[1]</sup> Rate Increase Request

| Policy Form | Benefit      | Prior    | Requested | Cumulative |
|-------------|--------------|----------|-----------|------------|
| Cohort      | Period       | Increase | Increase  | Increase   |
| Prior to    | Non-Lifetime | 79.4%    | 48.0%     | 166%       |
| Series 11   | Lifetime     | 97.0     | 153.2     | 399        |
| Series 11   | Non-Lifetime | 68.4     | 57.7      | 166        |
| Individual  | Lifetime     | 108.2    | 139.5     | 399        |
| Series 11   | Non-Lifetime | 82.0     | 45.9      | 166        |
| Group       | Lifetime     | 91.4     | 160.6     | 399        |
| Average     |              | 82.0     | 76.0      | 220        |

[1] As of December 31, 2018 and excludes policies assumed to be paid up prior to implementation of the requested rate increase.

Address: 165 Court Street. Rochester. New York 14647

#### Series 11 and Prior Actuarial Memorandum

January 10, 2020

While emerging experience supports a larger rate increase, the company is limiting the increase to be an actuarially equivalent follow-up to the prior requests in order to improve equity across jurisdictions. The company plans to continue to monitor experience and request additional rate increases in the future, to the extent justified. However, if it is the Department's position to only allow future rate increases if experience deteriorates from the current most-likely projections used in this filing, the company respectfully requests that the Department notify them and allow the company to revise the current rate increase request.

Corresponding rate tables reflecting the current and proposed rate increases are enclosed with this filing. Please note that the actual rates implemented may vary slightly from those in the enclosed rate tables due to implementation rounding algorithms.

As the company is not currently marketing new business, the required statement that the renewal premium rate schedules are not greater than the new business premium rate schedules is not applicable.

#### 3. Description of Benefits

These products provide long-term care coverage. The Series 11 products are tax-qualified, and were issued on an individual or group basis. The Prior to Series 11 product includes tax-qualified and non-tax qualified policy forms, and was issued on an individual basis. Each product has benefit eligibility requirements that involve activities of daily living (ADL) deficiencies or cognitive impairment. Waiver of premium is provided when certain benefits are being paid. A daily benefit, benefit period, and elimination period were selected at issue.

At issue, the insured may have had the option to choose one of the following inflation options, the availability of which varied by policy form: simple inflation for life, simple inflation for 20 years, or compound inflation. The two simple inflation options provide for benefit levels that increase on each anniversary date by 5% of the daily benefit amount chosen at issue for either the life of the insured or 20 years depending on the option chosen. The compound inflation option provides for benefit levels that increase on each anniversary date by 5% compounded annually for the life of the insured. These automatic increasing benefits apply even when the insured is in claim status. For Series 11 Group forms, the insured may have also had the option of a guaranteed purchase option. Under this option, the insured can purchase additional coverage amounts of 5% per year without additional underwriting.

The available choices for benefit period, elimination period, and inflation option are shown in Section 21.

At issue the insured may have had the option of selecting riders that provide the following types of coverage: nonforfeiture, restoration of benefits, return of premium, shortened benefit period, spousal benefit transfer, survivorship benefit, or monthly home health care benefit. The insured may have had the option to select a lifetime, ten-year, or twenty-year premium payment option.

A contingent benefit upon lapse (CBUL) will be available to all insureds at the time of the rate increase.

#### 4. Renewability

These policies are guaranteed renewable for life.

#### 5. Applicability

This rate increase applies to all policies issued on the above-listed form(s) in this jurisdiction. The rate changes will apply to the premium of the base form and all applicable options and riders associated with the base form.

#### 6. Actuarial Assumptions

The following assumptions are used to project the experience shown in this filing.

Address: 165 Court Street, Rochester, New York 14647

#### **Series 11 and Prior Actuarial Memorandum**

#### January 10, 2020

- a. Morbidity reflects claim costs developed using the 2014 Milliman Long-Term Care Guidelines (Guidelines) with adjustments for underwriting selection, an all-lives exposure basis, and four years of retrospective improvement to bring the Guidelines forward to 2018. The claim costs were further adjusted based on historical claim experience by policy form cohort, attained age, duration, individual vs. group, payment type, and coverage type, to the extent credible. These adjustment factors can be found in Exhibit A-5a of Appendix A to this memorandum.
- b. Mortality Rates reflect the 2012 Individual Annuitant Mortality (IAM) Basic table. The mortality rates were adjusted based on historical mortality experience by gender, marital status, attained age, and duration. The adjusted 2012IAM table was then brought forward to 2018 using the 2012IAM attained age mortality improvement scale (i.e., G2 projection scale). These adjustment factors can be found in Exhibit A-1a and A-1c of Appendix A to this memorandum.
- c. <u>Voluntary Lapse Rates</u> vary by policy duration (ultimate for 10+), attained age (ultimate for 65+), benefit period (lifetime or non-lifetime), inflation protection (auto inflation or none), marital status, policy form cohort, and premium payment option. The table below summarizes the ultimate lapse rates by key characteristics for lifetime-pay policies.

### Ultimate Lapse Rates Lifetime-Pay Policies

| incline i aj i cholco |                            |           |                                |           |                            |           |                                |           |
|-----------------------|----------------------------|-----------|--------------------------------|-----------|----------------------------|-----------|--------------------------------|-----------|
|                       |                            | Married   |                                |           | Single                     |           |                                |           |
|                       | Lifetime<br>Benefit Period |           | Non-Lifetime<br>Benefit Period |           | Lifetime<br>Benefit Period |           | Non-Lifetime<br>Benefit Period |           |
| Policy Form           | Auto                       | No        | Auto                           | No        | Auto                       | No        | Auto                           | No        |
| Cohort                | Inflation                  | Inflation | Inflation                      | Inflation | Inflation                  | Inflation | Inflation                      | Inflation |
| Prior to Series 11    | 0.4%                       | 0.5%      | 0.5%                           | 0.7%      | 0.5%                       | 0.6%      | 0.6%                           | 0.9%      |
| Series 11 Individual  | 0.3                        | 0.4       | 0.4                            | 0.5       | 0.4                        | 0.5       | 0.5                            | 0.7       |
| Series 11 Group       | 0.6                        | 0.7       | 0.7                            | 1.0       | 8.0                        | 0.9       | 0.9                            | 1.2       |

The durational voluntary lapse rates were adjusted based on the following criteria for the limitedpay options:

- For the ten-pay option, a reduction of 65% of the durational lapse rates is assumed for durations one through four, a reduction of 70% of the durational lapse rates is assumed for durations five through eight, and 0% lapse thereafter.
- For the twenty-pay option, a reduction of 50% of the durational lapse rates is assumed for durations one through eight, a reduction of 75% of the durational lapse rates is assumed for durations nine through fifteen, and 0% lapse thereafter.
- d. <u>Benefit Expiry Rates</u> reflect assumed policy termination due to exhaustion of benefits on limited benefit period policies. The rates are based on the 2017 *Guidelines* with adjustments for historical benefit expiry experience and vary by gender, benefit period, and attained age as shown in the following table.

Address: 165 Court Street. Rochester. New York 14647

#### **Series 11 and Prior Actuarial Memorandum**

#### January 10, 2020

|        | Benefit         |      |      |      |      |      | Attaine | d Age <sup>[1]</sup> |      |       |       |       |
|--------|-----------------|------|------|------|------|------|---------|----------------------|------|-------|-------|-------|
| Gender | Period in Years | <65  | 65   | 70   | 75   | 80   | 85      | 90                   | 95   | 100   | 105   | 110+  |
| Female | 1               | 0.0% | 0.1% | 0.2% | 0.3% | 0.8% | 2.3%    | 5.4%                 | 9.7% | 11.3% | 19.3% | 20.7% |
|        | 2               | 0.0  | 0.0  | 0.1  | 0.2  | 0.5  | 1.6     | 4.4                  | 8.2  | 10.7  | 19.0  | 20.7  |
|        | 3               | 0.0  | 0.0  | 0.1  | 0.2  | 0.5  | 1.3     | 3.4                  | 6.7  | 9.3   | 19.0  | 20.7  |
|        | 4               | 0.0  | 0.0  | 0.1  | 0.1  | 0.3  | 0.9     | 2.5                  | 4.8  | 7.1   | 17.0  | 20.7  |
|        | 5               | 0.0  | 0.0  | 0.0  | 0.1  | 0.2  | 0.6     | 1.8                  | 3.7  | 6.3   | 14.4  | 20.7  |
|        | Lifetime        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0     | 0.0                  | 0.0  | 0.0   | 0.0   | 0.0   |
| Male   | 1               | 0.0  | 0.1  | 0.1  | 0.2  | 0.5  | 1.6     | 4.0                  | 6.9  | 7.8   | 11.3  | 20.7  |
|        | 2               | 0.0  | 0.0  | 0.1  | 0.2  | 0.4  | 1.1     | 2.8                  | 5.1  | 6.0   | 10.2  | 20.7  |
|        | 3               | 0.0  | 0.0  | 0.1  | 0.1  | 0.3  | 8.0     | 1.9                  | 3.8  | 4.8   | 9.1   | 20.7  |
|        | 4               | 0.0  | 0.0  | 0.0  | 0.1  | 0.2  | 0.4     | 1.3                  | 2.4  | 3.4   | 7.9   | 20.7  |
|        | 5               | 0.0  | 0.0  | 0.0  | 0.1  | 0.1  | 0.3     | 8.0                  | 2.1  | 2.9   | 6.8   | 20.7  |
|        | Lifetime        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0     | 0.0                  | 0.0  | 0.0   | 0.0   | 0.0   |

<sup>[1]</sup> The assumption varies by attained age, but is shown every five years for display purposes.

e. <u>Policyholder Behavior Due to the Rate Increase.</u> At the time of a rate increase, insureds have the option to elect a CBUL or reduced benefit options (RBO). An increase in morbidity for adverse selection due to the rate increase is assumed based on the percentage of policies that elect CBUL and RBO.

Insureds who elect a CBUL are modeled as a lapse (i.e., the CBUL benefit is not modeled), which results in a slightly lower lifetime loss ratio than if the CBUL benefit had been modeled. The following table provides the CBUL and RBO election rates, reduction to premiums and benefits due to the impact of RBO elections, and increase in morbidity by requested rate increase levels for lifetime-pay policies. Limited-pay policies are assumed to not elect CBUL or RBO.

**Policyholder Behavior Assumptions** 

| · onejmenae. Zenamen zeeampuene |                          |                         |  |   |  |
|---------------------------------|--------------------------|-------------------------|--|---|--|
| Requested<br>Increase           | CBUL<br>Election<br>Rate | RBO<br>Election<br>Rate | Approximate<br>Reduction for<br>RBO <sup>[1]</sup> | Morbidity<br>Increase for<br>Adverse<br>Selection |  |
| 0.1 – 9.9%                      | 1%                       | 1%                      | 0.0%   | 0.4%  |  |
| 10.0 – 19.9                     | 3                        | 2                       | 0.3  | 1.0   |  |
| 20.0 - 39.9                     | 6                        | 5                       | 1.2  | 2.2   |  |
| 40.0 – 74.9                     | 8                        | 10                      | 4.0  | 3.4   |  |
| 75.0 – 99.9                     | 10                       | 15                      | 7.8  | 4.6   |  |
| 100.0 – 149.9                   | 11                       | 20                      | 12.5   | 5.5   |  |
| 150.0 – 299.9                   | 12                       | 25                      | 19.7   | 6.5   |  |

[1] For display purposes, the approximate reduction for RBO values reflect the midpoint of the requested increase within each range. A detailed description of the calculation can be found in Appendix A. For example, the 20.0% – 39.9% range was calculated using the formula in Appendix A and a rate increase of 30%.

- f. <u>Interest Rate</u> consistent with the maximum valuation interest rate applicable to the year of issue (ranges from 3.5% to 5.5% and averages 4.5%) is used to demonstrate compliance with the minimum loss ratio requirements.
- g. Annual Improvement in the mortality and morbidity assumptions is assumed for 10 years starting in 2019. Annual mortality improvement factors vary by attained age and gender based on the G2 improvement scale from the 2012IAM table. Annual morbidity improvement is assumed to be 1.0%.

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h. <u>Expenses</u> have not been explicitly projected for the purpose of demonstrating compliance with minimum loss ratio requirements. Originally filed expense assumptions are assumed to remain appropriate, except that reductions are made to the renewal commission rates so that the total commissions paid before and after any increase in premium are similar (i.e., commissions are not paid on the increased premium).

The above assumptions are based on the experience of the above-listed policy form(s) and similar forms issued by MedAmerica and its affinity partners, other similar business issued by MedAmerica (including its affinity partners and acquired blocks of business), industry experience, and actuarial judgment. The above assumptions are deemed reasonable for the particular policy form(s) in this filing and are considered "most likely" (without explicit margin).

In establishing the assumptions described in this section, the policy design, underwriting, and claims adjudication practices for the above-referenced product(s) were taken into consideration. Appendix A to this memorandum provides a description of the development of and justification for the assumptions used in this filing.

The company is not currently marketing long-term care products. As a result, the requirement to reflect on any assumptions that deviate from those used for pricing other forms currently available for sale is not applicable.

#### 7. Marketing Method

Agents and brokers of the company marketed these products.

#### 8. Underwriting Description

Policies on the individual forms were fully underwritten.

On the group forms, actively at work employees were subject to short form underwriting. All others were subject to full underwriting.

Groups of at least 500 employees were eligible to elect modified guaranteed issue underwriting for those actively at work. If the employer agreed to contribute 100% of premium for a base plan for a minimum of three years, no underwriting was required for those actively at work.

For both individual and group business, the company used various underwriting tools in addition to the application, which may have included medical records, an attending physician's statement, telephone interview, and/or face-to-face assessment.

#### 9. Premiums

Premiums are unisex and payable for life unless the insured selected a ten-year or twenty-year premium payment option. The premiums may vary by policy form, issue age, elimination period, benefit period, initial daily benefit, inflation option, premium payment option, underwriting class, joint/group discounts, home care percentage, copayment option, marital status at issue, and the selection of any riders.

#### 10. Issue Age Range

Issue ages are from 18 to 85.

#### 11. Area Factors

Area factors are not used for these products.

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#### 12. Premium Modalization Rules

The following modal factors and percent distributions (based on the nationwide in-force count as of December 31, 2018) are applied to the annual premium (AP):

| Premium<br>Mode | Modal<br>Factors | Percent<br>Distribution |
|-----------------|------------------|-------------------------|
| Annual          | 1.00*AP          | 47%                     |
| Semi-Annual     | 0.52*AP          | 4                       |
| Quarterly       | 0.26*AP          | 25                      |
| Monthly         | 0.09*AP          | 24                      |

#### 13. Reserves

Active life reserves and reserves for the election of a CBUL have not been used in the experience exhibits for this rate increase analysis for the purpose of demonstrating compliance with minimum loss ratio requirements. Claim reserves as of December 31, 2018 have been discounted to the incurral date of each respective claim and included in historical incurred claims. An incurred but not reported (IBNR) reserve balance as of December 31, 2018 has been allocated to the 2018 calendar year and included in historical incurred claims.

#### 14. Trend Assumptions

As this is not medical insurance, an explicit medical cost trend is not included in the projections.

#### 15. Demonstration of Satisfaction of Loss Ratio Requirements

This filing uses pooled nationwide experience of the above-listed product(s) and similar individual and group products issued nationwide by MedAmerica and its affinity partners. The pooled experience is appropriate to increase credibility and allow for a uniform rate increase request across similar business. Applying a uniform rate increase to the pool of forms maintains the original pricing relationships of the product design and differences between individual and group business.

Further, pooling experience is appropriate because the products issued are identical, the marketing and distribution employed is similar, and the same company (MedAmerica) administers and manages the entire block (including underwriting and claims handling). MedAmerica has 50% to 100% of the risk of the affinity partner forms via reinsurance arrangements with each affinity partner.

Exhibit I provides actual and projected experience using current assumptions. Actual experience is provided from inception through 2018 and then projected on a seriatim basis for 60 years using the current assumptions described above in Section 6. The actual and projected experience is based on nationwide premiums that reflect prior rate increases filed for use between January 2010 and April 2019, which average 82% across all jurisdictions. The after increase projected experience reflects the additional increase needed to achieve the cumulative increases shown in Section 2 on a seriatim basis.

Values in Exhibit I are shown (a) before and (b) after the nationwide requested rate increase. Included are calendar year earned premiums, incurred claims, end of year lives, and annual loss ratios. As shown in Exhibit I-b, the anticipated lifetime loss ratio with the nationwide requested rate increase exceeds the minimum loss ratio required by pre-rate stability regulation.

The following table demonstrates that the lifetime loss ratios by policy form cohort and benefit period also exceed the minimum loss ratio required by pre-rate stability regulation. The final row corresponds to that shown in Exhibit I.

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Nationwide Lifetime Loss Ratios at the Maximum Valuation Interest Rate by Policy Form Cohort and Benefit Period

|                      | Benefit      | Before   | After    |
|----------------------|--------------|----------|----------|
| Policy Form Cohort   | Period       | Increase | Increase |
| Prior to Series 11   | All          | 103%     | 98%      |
| Series 11 Individual | All          | 121      | 104      |
| Series 11 Group      | All          | 107      | 92       |
| All                  | Non-Lifetime | 97       | 88       |
| All                  | Lifetime     | 159      | 130      |
| All                  | All          | 113      | 100      |

Exhibit II provides a demonstration that the nationwide requested rate increase meets the 58%/85% test required by post-rate stability regulation. This exhibit shows that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

- 1. Accumulated value of the initial earned premium times 58%.
- 2. 85% of the accumulated value of prior premium rate schedule increases,
- 3. Present value of projected initial earned premium times 58%, and
- 4. 85% of the present value of projected premium in excess of the projected initial earned premium.

The projected incurred claims in Exhibit II were increased by 15% from the current assumptions described in Section 6 to reflect assumptions that include moderately adverse conditions.

The following table demonstrates that the 58%/85% test is passed by policy form cohort and benefit period. The 'All' row corresponds to that shown in Exhibit II. Values in the table are shown in millions of dollars.

58%/85% Test by Policy Form Cohort and Benefit Period

| Co / 0/ Co / 0   Co   Co   Co   Co   Co   Co   Co |                   |                       |                       |                       |
|---|-------------------|-----------------------|-----------------------|-----------------------|
| Policy Form<br>Cohort                             | Benefit<br>Period | Item 5 <sup>[1]</sup> | Item 7 <sup>[2]</sup> | Result <sup>[3]</sup> |
| Prior to Series 11                                | All               | \$149.1               | \$257.2               | Pass                  |
| Series 11 Individual                              | All               | 339.4                 | 602.1                 | Pass                  |
| Series 11 Group                                   | All               | 145.5                 | 226.7                 | Pass                  |
| All   | Non-Lifetime      | 451.5                 | 684.2                 | Pass                  |
| All   | Lifetime          | 182.5                 | 401.8                 | Pass                  |
| All   | All               | 634.0                 | 1,086.0               | Pass                  |

<sup>[1]</sup> Item 5 is the Lifetime Earned Premium Times Prescribed Factor.

#### 16. Actual-to-Expected Experience

The following table provides a comparison of actual and projected experience using current assumptions to that expected using original pricing assumptions. Values in the following table are shown (a) before and (b) after the nationwide requested rate increase.

<sup>[2]</sup> Item 7 is Lifetime Incurred Claims with Rate Increase.

<sup>[3]</sup> Test of whether Item 7 is not less than Item 5.

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Nationwide Actual and Expected Loss Ratios by Policy Form Cohort and Benefit Period

|                      |              | Lif      | Lifetime Loss Ratio |          |          | -Expected |
|----------------------|--------------|----------|---------------------|----------|----------|-----------|
| Policy Form          | Benefit      | Before   | After               |          | Before   | After     |
| Cohort               | Period       | Increase | Increase            | Expected | Increase | Increase  |
| Prior to Series 11   | All          | 96%      | 91%                 | 66%      | 1.46     | 1.39      |
| Series 11 Individual | All          | 114      | 99                  | 58       | 1.97     | 1.70      |
| Series 11 Group      | All          | 99       | 85                  | 70       | 1.41     | 1.22      |
| All                  | Non-Lifetime | 90       | 82                  | 64       | 1.42     | 1.29      |
| All                  | Lifetime     | 149      | 124                 | 60       | 2.50     | 2.08      |
| All                  | All          | 106      | 94                  | 63       | 1.69     | 1.50      |

Actual and projected experience in the above table is identical to that described in Exhibit I, except historical experience is accumulated at MedAmerica's actual historical earned interest rates, which average 5.4% for this block, and projected experience is discounted at MedAmerica's current most-likely interest rate assumption of 4.75%. This 4.75% rate represents MedAmerica's expectation of its long-term investment earnings rate based on the average net investment earnings rate projected for MedAmerica's 2018 cash flow testing.

Expected experience uses the actual policies sold and projects from issue on a seriatim basis using the original pricing assumptions.

Exhibit III provides a comparison of the current and original pricing assumptions that underlie the actual and expected experience described above.

#### 17. History of Previous Rate Revisions

Please see the enclosed cover letter, which provides the jurisdiction-specific average prior rate increase and rate history for the above-listed form(s). Section 2 above describes the nationwide average prior rate increase across the pooled experience.

#### 18. Analysis Performed to Consider a Rate Increase

The experience table in Section 16 above demonstrates that experience has been more adverse from that expected using original pricing assumptions as the A:E loss ratios exceeds 1.0. The adverse experience is due to a combination of higher persistency and lower interest.

The following table provides a comparison of actual and projected nationwide experience to that expected in pricing with respect to morbidity, mortality, lapse (combination of voluntary lapse and benefit expiry), interest, and improvement. The current and original pricing assumptions are provided in Exhibit III.

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Impact of Changing from Pricing to Current Assumptions

| Scenario   | Lifetime<br>Loss Ratio<br>(LLR) | Incremental<br>Impact on<br>the LLR <sup>[1]</sup> | Increase<br>Needed <sup>[2]</sup> |  |  |
|--|---------------------------------|--|-----------------------------------|--|--|
| Original pricing assumptions   | 63%                             | N/A  | N/A                               |  |  |
| Historical experience through 2018 & projections with pricing assumptions <sup>[3]</sup>                 | 73                              | 16%  | 145%                              |  |  |
| Historical experience through 2018 & projections with pricing assumptions except for current:            |                                 |  |                                   |  |  |
| Interest   | 81                              | 12   | 89                                |  |  |
| Interest, lapse  | 85                              | 5  | 34                                |  |  |
| Interest, lapse, mortality   | 108                             | 27   | 155                               |  |  |
| Interest, lapse, mortality, morbidity  | 109                             | 1  | 3                                 |  |  |
| Interest, lapse, mortality, morbidity, improvement   | 106                             | -3   | -14                               |  |  |
| Historical experience through 2018 & projections with all current most-likely assumptions <sup>[4]</sup> | 106                             | 69   | 395                               |  |  |

<sup>[1]</sup> Calculated as the ratio of the lifetime loss ratio in a given row to that in the row immediately above it less one.
[2] Shows the rate increase needed to reproduce the lifetime loss ratio in the row immediately above it. Calculated without regard to CBUL, RBO, adverse selection, and higher waiver claims due to the needed rate increase.
[3] This row reflects actual historical experience and pricing assumptions projected from the valuation date, reflecting prior rate increases approved through April 12, 2019.

For the business subject to rate stability regulation, an analysis of the projected loss ratio compared to that assumed at the time of original pricing revealed that experience has unfolded more than moderately adverse and crossed the original pricing threshold for which the company could consider a rate increase. At the time the product was priced, MedAmerica management determined the threshold for future increases would be defined as experience exhibiting deterioration of more than 10% of premium compared to that assumed in pricing. Section 16 demonstrates that the 'All' lifetime loss ratio before the requested rate increase using current assumptions is over 100% and well in excess of this original pricing threshold.

#### 19. Average Annual Premium in Pennsylvania (Based on December 31, 2018 In-Force)

The number of insureds and the corresponding average annual premium that will be affected by this and the identical, concurrent rate increase filing are shown in the table(s) below. The values provided in the table(s) below exclude policies assumed to be paid up prior to implementation of the requested rate increase.

Pennsylvania - MedAmerica

|                      |              |          |          | After     |
|----------------------|--------------|----------|----------|-----------|
|                      |              | Number   | Before   | Requested |
| Policy Form          | Benefit      | of       | Increase | Increase  |
| Cohort               | Period       | Insureds | Premium  | Premium   |
|                      | Non-Lifetime | 87       | \$2,081  | \$2,541   |
| Prior to Series 11   | Lifetime     | 13       | 4,197    | 9,704     |
|                      | Total        | 100      | 2,356    | 3,472     |
|                      | Non-Lifetime | 67       | 3,045    | 3,718     |
| Series 11 Individual | Lifetime     | 30       | 4,387    | 10,144    |
|                      | Total        | 97       | 3,460    | 5,706     |
|                      | Non-Lifetime | 66       | 1,969    | 2,404     |
| Series 11 Group      | Lifetime     | 0        | 0        | 0         |
|                      | Total        | 66       | 1,969    | 2,404     |
|                      | Non-Lifetime | 220      | 2,341    | 2,858     |
| Total                | Lifetime     | 43       | 4,329    | 10,011    |
|                      | Total        | 263      | 2,666    | 4,028     |

<sup>[4]</sup> This row is calculated in regards to the pricing lifetime loss ratio of 63%.

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#### 20. Proposed Effective Date

This rate increase will apply to policies on their next premium payment date following at least a 60-day policyholder notification period following being filed for use by the department of insurance, but no sooner than 12 months after the prior rate increase was effective.

#### 21. Distribution of Business as of December 31, 2018 (Based on Nationwide In-Force Insured Count)

| Issue Ages | Percent Distribution |
|------------|----------------------|
| <40        | 8%                   |
| 40-44      | 7                    |
| 45-49      | 11                   |
| 50-54      | 17                   |
| 55-59      | 21                   |
| 60-64      | 19                   |
| 65-69      | 11                   |
| 70-74      | 5                    |
| 75+        | 1                    |

| Elimination Period | Percent Distribution |
|--------------------|----------------------|
| 0-Day              | 4%                   |
| 20-Day             | 21                   |
| 30-Day             | <1                   |
| 60-Day             | 6                    |
| 90-Day             | 53                   |
| 100-Day            | 5                    |
| 180-Day            | 11                   |
| 365-Day            | <1                   |

| Benefit Period | Percent Distribution |
|----------------|----------------------|
| 1-Year         | <1%                  |
| 2-Year         | 18                   |
| 3-Year         | 37                   |
| 4-Year         | 8                    |
| 5-Year         | 18                   |
| Lifetime       | 19                   |

| Inflation Option    | Percent Distribution |
|---------------------|----------------------|
| None                | 39%                  |
| Simple for Life     | 3                    |
| Compound for Life   | 38                   |
| Simple for 20 Years | 20                   |
| GPO                 | <1                   |

| Premium Payment<br>Option | Percent Distribution |
|---------------------------|----------------------|
| Ten-Pay                   | 15%                  |
| Twenty-Pay                | 11                   |
| Lifetime-Pay              | 74                   |

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| Coverage Type    | Percent Distribution |
|------------------|----------------------|
| Facility Only    | 11%                  |
| Comprehensive    | 88                   |
| Home Health Only | 1                    |

#### 22. Number of Insureds and Annualized Premium (Based on December 31, 2018 In-Force)

The number of insureds and annualized premium that will be affected by this and the identical, concurrent rate increase filing are shown in the tables below. The values provided in the tables below exclude policies assumed to be paid up prior to implementation of the requested rate increase.

Pennsylvania - MedAmerica

| r ennsylvania – MedAmerica |                   |                       |                       |  |  |  |  |  |
|----------------------------|-------------------|-----------------------|-----------------------|--|--|--|--|--|
| Policy Form<br>Cohort      | Benefit<br>Period | Number of<br>Insureds | Annualized<br>Premium |  |  |  |  |  |
|                            | Non-Lifetime      | 87                    | \$181,024             |  |  |  |  |  |
| Prior to Series 11         | Lifetime          | 13                    | 54,555                |  |  |  |  |  |
|                            | Total             | 100                   | 235,579               |  |  |  |  |  |
|                            | Non-Lifetime      | 67                    | 204,011               |  |  |  |  |  |
| Series 11 Individual       | Lifetime          | 30                    | 131,599               |  |  |  |  |  |
|                            | Total             | 97                    | 335,610               |  |  |  |  |  |
|                            | Non-Lifetime      | 66                    | 129,942               |  |  |  |  |  |
| Series 11 Group            | Lifetime          | 0                     | 0                     |  |  |  |  |  |
|                            | Total             | 66                    | 129,942               |  |  |  |  |  |
|                            | Non-Lifetime      | 220                   | 514,977               |  |  |  |  |  |
| Total                      | Lifetime          | 43                    | 186,154               |  |  |  |  |  |
|                            | Total             | 263                   | 701,131               |  |  |  |  |  |

#### Nationwide

| Nationwide           |              |           |             |  |  |  |  |  |
|----------------------|--------------|-----------|-------------|--|--|--|--|--|
| Policy Form          | Benefit      | Number of | Annualized  |  |  |  |  |  |
| Cohort               | Period       | Insureds  | Premium     |  |  |  |  |  |
|                      | Non-Lifetime | 719       | \$1,768,076 |  |  |  |  |  |
| Prior to Series 11   | Lifetime     | 332       | 1,015,415   |  |  |  |  |  |
|                      | Total        | 1,051     | 2,783,491   |  |  |  |  |  |
|                      | Non-Lifetime | 4,807     | 9,020,569   |  |  |  |  |  |
| Series 11 Individual | Lifetime     | 1,553     | 5,273,045   |  |  |  |  |  |
|                      | Total        | 6,360     | 14,293,614  |  |  |  |  |  |
|                      | Non-Lifetime | 4,457     | 7,048,528   |  |  |  |  |  |
| Series 11 Group      | Lifetime     | 60        | 162,672     |  |  |  |  |  |
|                      | Total        | 4,517     | 7,211,200   |  |  |  |  |  |
|                      | Non-Lifetime | 9,983     | 17,837,173  |  |  |  |  |  |
| Total                | Lifetime     | 1,945     | 6,451,132   |  |  |  |  |  |
|                      | Total        | 11,928    | 24,288,305  |  |  |  |  |  |

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#### 23. Actuarial Certification

I am a Principal and Consulting Actuary for Milliman, Inc. and retained by MedAmerica to render an opinion with regard to long-term care insurance rates. I am a member of the American Academy of Actuaries. I meet the Academy's qualification standards to render this actuarial opinion and am familiar with the requirements for filing long-term care insurance premiums and rate increases.

This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including Actuarial Standards of Practice No. 8, "Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits" and 18, "Long-Term Care Insurance".

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of this jurisdiction and the rules of this department of insurance.

In my opinion, the rates are not excessive or unfairly discriminatory, and bear reasonable relationship to the benefits based on the loss ratio standards of this jurisdiction.

This filing will enhance premium adequacy, but may not be sufficient to prevent future rate action. Additional rate increases are needed to certify that rates will remain stable under moderately adverse conditions.

In forming my opinion, I have used actuarial assumptions and actuarial methods (which gave consideration to policy design, underwriting, and claim adjudication) and such tests of the actuarial calculations as I considered necessary. Based on these assumptions, or statutory requirements where necessary, this premium rate filing is in compliance with the loss ratio standards of this jurisdiction.

I have relied on data and information provided by MedAmerica to develop this memorandum, including but not limited to management's view of when a rate change may be considered, policy design, underwriting and claim adjudication process, seriatim in-force data, claim data, and the company's long-term earnings rate. I have not audited or independently verified the data and information provided, but have reviewed it for reasonableness.

The basis for contract reserves has been previously filed and there is no anticipation of any changes.

Missy Gordon, FSA, MAAA Principal and Consulting Actuary

Date: January 10, 2020

# Exhibit I-a MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Calendar Year Nationwide Experience Before Requested Rate Increase Series 11 and Prior Policy Forms

| С          | Calendar             | A                        | Without Interest<br>B    | C = B / A        | D                | E W                      | ith Max. Val. Intere     |                        |  |  |  |
|------------|----------------------|--------------------------|--------------------------|------------------|------------------|--------------------------|--------------------------|------------------------|--|--|--|
| С          |                      | A                        | В                        | C = B / A        | D                | F                        |                          |                        |  |  |  |
| С          |                      | 1                        |                          |                  |                  | _                        | Г                        | G=F/E                  |  |  |  |
|            |                      | Earma-l                  | Incurred -               | Inc              | End of V         | Earna-l                  | Incurre -                | In accord              |  |  |  |
|            |                      | Earned                   | Incurred<br>Claims       | Incurred         | End of Year      | Earned<br>Premium        | Incurred<br>Claims       | Incurred<br>Loss Ratio |  |  |  |
|            | Year<br>1992         | Premium<br>17,324        | Claims                   | Loss Ratio 0%    | Lives<br>111     | 71,586                   | Claims<br>0              | LOSS RATIO 0%          |  |  |  |
|            | 1993                 | 557,528                  | 112,031                  | 20%              | 634              | 2,000,739                | 390,130                  | 19%                    |  |  |  |
| I          | 1994                 | 1,500,482                | 28,415                   | 2%               | 1,376            | 5,000,457                | 93,904                   | 2%                     |  |  |  |
|            | 1995                 | 2,485,029                | 109,652                  | 4%               | 1,943            | 7,615,872                | 328,779                  | 4%                     |  |  |  |
|            | 1996                 | 3,452,114                | 134,262                  | 4%               | 2,631            | 9,767,306                | 363,261                  | 4%                     |  |  |  |
|            | 1997                 | 4,257,921                | 258,439                  | 6%               | 2,884            | 11,351,783               | 722,059                  | 6%                     |  |  |  |
|            | 1998                 | 5,071,109                | 631,867                  | 12%              | 3,447            | 12,825,438               | 1,628,343                | 13%                    |  |  |  |
|            | 1999                 | 6,457,482                | 1,469,714                | 23%              | 4,511            | 15,508,468               | 3,549,679                | 23%                    |  |  |  |
|            | 2000                 | 8,508,577                | 1,172,992                | 14%              | 5,902            | 19,440,203               | 2,747,609                | 14%                    |  |  |  |
|            | 2001                 | 11,453,720               | 2,031,477                | 18%              | 8,144            | 24,936,673               | 4,502,841                | 18%                    |  |  |  |
| Historical | 2002<br>2003         | 15,617,243               | 4,129,889                | 26%<br>16%       | 11,144<br>17,381 | 32,444,884               | 8,685,044                | 27%<br>16%             |  |  |  |
| Experience | 2003                 | 20,978,007<br>26,599,004 | 3,320,983<br>6,241,153   | 23%              | 18,793           | 41,633,941<br>50,454,166 | 6,624,075<br>11,880,541  | 24%                    |  |  |  |
| Experience | 2005                 | 28,082,605               | 6,804,563                | 24%              | 19,928           | 50,952,747               | 12,396,414               | 24%                    |  |  |  |
|            | 2006                 | 28,353,106               | 7,236,076                | 26%              | 19,787           | 49,161,822               | 12,600,226               | 26%                    |  |  |  |
|            | 2007                 | 27,938,251               | 10,582,193               | 38%              | 19,852           | 46,299,524               | 17,627,243               | 38%                    |  |  |  |
|            | 2008                 | 27,419,750               | 8,154,815                | 30%              | 19,654           | 43,441,448               | 12,987,481               | 30%                    |  |  |  |
|            | 2009                 | 26,498,424               | 11,148,740               | 42%              | 19,200           | 40,159,832               | 16,973,198               | 42%                    |  |  |  |
|            | 2010                 | 25,187,102               | 15,825,758               | 63%              | 18,231           | 36,523,397               | 23,059,195               | 63%                    |  |  |  |
|            | 2011                 | 24,281,006               | 13,405,255               | 55%              | 17,415           | 33,692,333               | 18,672,749               | 55%                    |  |  |  |
|            | 2012                 | 24,895,541               | 15,249,799               | 61%              | 17,350           | 33,048,891               | 20,307,361               | 61%                    |  |  |  |
|            | 2013                 | 24,058,770               | 14,358,025               | 60%              | 17,027           | 30,558,715               | 18,310,572               | 60%                    |  |  |  |
|            | 2014<br>2015         | 22,186,152               | 22,522,172               | 102%<br>112%     | 16,579           | 26,966,223               | 27,465,201               | 102%                   |  |  |  |
|            | 2015                 | 21,244,350<br>20,937,096 | 23,851,868<br>21,675,244 | 104%             | 15,985<br>15,787 | 24,717,000<br>23,318,481 | 27,822,720<br>24,194,874 | 113%<br>104%           |  |  |  |
|            | 2017                 | 20,937,090               | 26,052,673               | 130%             | 14,983           | 21.376.772               | 27,828,292               | 130%                   |  |  |  |
|            | 2018                 | 19,402,841               | 22,741,293               | 117%             | 14,061           | 19,825,357               | 23,246,594               | 117%                   |  |  |  |
|            | 2019                 | 19,461,729               | 23,166,382               | 119%             | 13,223           | 19,046,859               | 22,663,374               | 119%                   |  |  |  |
|            | 2020                 | 20,023,354               | 24,310,398               | 121%             | 12,791           | 18,772,373               | 22,761,834               | 121%                   |  |  |  |
|            | 2021                 | 19,960,826               | 25,929,465               | 130%             | 12,374           | 17,926,967               | 23,237,065               | 130%                   |  |  |  |
|            | 2022                 | 19,244,457               | 27,606,346               | 143%             | 11,953           | 16,557,537               | 23,680,567               | 143%                   |  |  |  |
|            | 2023                 | 18,022,232               | 29,248,218               | 162%             | 11,530           | 14,857,331               | 24,016,145               | 162%                   |  |  |  |
|            | 2024                 | 16,784,794               | 30,964,045               | 184%             | 11,105           | 13,260,358               | 24,339,070               | 184%                   |  |  |  |
|            | 2025<br>2026         | 15,749,200               | 32,634,889               | 207%             | 10,677           | 11,924,406               | 24,557,985               | 206%<br>230%           |  |  |  |
|            | 2026                 | 14,797,267<br>13,893,623 | 34,335,105<br>36,063,890 | 232%<br>260%     | 10,249<br>9,820  | 10,738,339<br>9,664,199  | 24,735,968<br>24,874,838 | 250%<br>257%           |  |  |  |
|            | 2027                 | 12,948,753               | 37,794,640               | 292%             | 9,391            | 8,632,804                | 24,959,438               | 289%                   |  |  |  |
|            | 2029                 | 12,101,915               | 39,720,881               | 328%             | 8,961            | 7,735,368                | 25,116,917               | 325%                   |  |  |  |
| Projected  | 2030                 | 11,279,556               | 41,803,055               | 371%             | 8,529            | 6,913,386                | 25,312,175               | 366%                   |  |  |  |
| Future     | 2031                 | 10,478,341               | 43,781,499               | 418%             | 8,098            | 6,159,321                | 25,388,448               | 412%                   |  |  |  |
| Experience | 2032                 | 9,698,877                | 45,604,621               | 470%             | 7,668            | 5,468,594                | 25,329,694               | 463%                   |  |  |  |
| (60 Years) | 2033                 | 8,944,821                | 47,259,042               | 528%             | 7,240            | 4,838,617                | 25,144,496               | 520%                   |  |  |  |
|            | 2034                 | 8,217,305                | 48,728,464               | 593%             | 6,816            | 4,265,396                | 24,838,873               | 582%                   |  |  |  |
|            | 2035                 | 7,518,460                | 50,019,525               | 665%             | 6,397            | 3,745,671                | 24,430,408               | 652%                   |  |  |  |
|            | 2036                 | 6,849,695                | 50,963,449               | 744%             | 5,984            | 3,275,962                | 23,853,424               | 728%                   |  |  |  |
|            | 2037                 | 6,212,521                | 51,631,979               | 831%             | 5,580            | 2,853,014                | 23,162,115               | 812%                   |  |  |  |
|            | 2038<br>2039         | 5,608,663<br>5,039,480   | 51,918,869<br>51,851,015 | 926%<br>1,029%   | 5,186<br>4,803   | 2,473,833<br>2,135,418   | 22,326,970<br>21,378,486 | 903%<br>1,001%         |  |  |  |
|            | 2040                 | 4,505,718                | 51,385,071               | 1,140%           | 4,433            | 1,834,689                | 20,316,530               | 1,107%                 |  |  |  |
|            | 2041                 | 4,008,043                | 50,533,445               | 1,261%           | 4,078            | 1,568,740                | 19,162,537               | 1,222%                 |  |  |  |
|            | 2042                 | 3,547,029                | 49,280,312               | 1,389%           | 3,739            | 1,334,824                | 17,926,898               | 1,343%                 |  |  |  |
|            | 2043                 | 3,122,927                | 47,722,022               | 1,528%           | 3,417            | 1,130,272                | 16,655,051               | 1,474%                 |  |  |  |
|            | 2044                 | 2,735,381                | 45,977,314               | 1,681%           | 3,113            | 952,403                  | 15,395,863               | 1,617%                 |  |  |  |
|            | 2045                 | 2,383,539                | 44,019,092               | 1,847%           | 2,827            | 798,594                  | 14,144,510               | 1,771%                 |  |  |  |
|            | 2046                 | 2,066,383                | 41,893,055               | 2,027%           | 2,560            | 666,394                  | 12,918,808               | 1,939%                 |  |  |  |
|            | 2047                 | 1,782,510                | 39,549,395               | 2,219%           | 2,313            | 553,452                  | 11,706,409               | 2,115%                 |  |  |  |
|            | 2048                 | 1,530,278                | 37,106,161               | 2,425%           | 2,084            | 457,561                  | 10,542,401               | 2,304%                 |  |  |  |
|            | 049-2053             | 4,828,594                | 147,543,946              | 3,056%           | 7,616            | 1,308,835                | 37,397,043               | 2,857%                 |  |  |  |
|            | 054-2058             | 2,009,833                | 89,396,634               | 4,448%           | 4,321            | 454,138                  | 18,567,312               | 4,088%<br>5,651%       |  |  |  |
|            | 059-2063<br>064-2068 | 771,465<br>273,986       | 48,141,856<br>23,286,328 | 6,240%<br>8,499% | 2,358            | 146,078<br>43,909        | 8,255,114<br>3,339,224   | 5,651%<br>7,605%       |  |  |  |
|            | 069-2073             | 90,253                   | 23,286,328<br>9,915,979  | 10,987%          | 1,183<br>504     | 43,909<br>12,401         | 1,208,539                | 7,605%<br>9,746%       |  |  |  |
|            | 074-2078             | 28,115                   | 3,765,851                | 13,394%          | 165              | 3,346                    | 402,512                  | 12,029%                |  |  |  |
|            | 31 4-2010            | 20,113                   | 3,703,031                | 10,004 /0        | 103              | 3,340                    | 702,012                  | 12,02970               |  |  |  |
| History    | ,                    | 447,481,595              | 239,249,349              | 53%              | 324,740          | 713,094,057              | 325,008,384              | 46%                    |  |  |  |
| Future     |                      | 296,519,925              | 1,554,852,239            | 524%             | 233,084          | 202,511,389              | 714,047,042              | 353%                   |  |  |  |
| Lifetime   |                      | 744,001,520              | 1,794,101,587            | 241%             | 557,824          | 915,605,446              | 1,039,055,426            | 113%                   |  |  |  |

Actuarial Memorandum Exhibits

# Exhibit I-b MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Calendar Year Nationwide Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|            |              | Loss Ratio Demonstration |                          |                  |                  |                          |                          |                  |
|------------|--------------|--------------------------|--------------------------|------------------|------------------|--------------------------|--------------------------|------------------|
|            |              | Α Ι                      | Without Interest<br>B    | C = B / A        | D                | E V                      | ith Max. Val. Intere     | G = F / E        |
|            |              | ^                        | ь                        | C-B/A            | D                | _                        | '                        | G-I/L            |
|            | Calendar     | Earned                   | Incurred                 | Incurred         | End of Year      | Earned                   | Incurred                 | Incurred         |
|            | Year         | Premium                  | Claims                   | Loss Ratio       | Lives            | Premium                  | Claims                   | Loss Ratio       |
|            | 1992<br>1993 | 17,324                   | 112.021                  | 0%<br>20%        | 111<br>634       | 71,586                   | 200 120                  | 0%               |
|            | 1993         | 557,528<br>1,500,482     | 112,031<br>28,415        | 20%              | 1,376            | 2,000,739<br>5,000,457   | 390,130<br>93,904        | 19%<br>2%        |
|            | 1995         | 2,485,029                | 109,652                  | 4%               | 1,943            | 7,615,872                | 328,779                  | 4%               |
|            | 1996         | 3,452,114                | 134,262                  | 4%               | 2,631            | 9,767,306                | 363,261                  | 4%               |
|            | 1997         | 4,257,921                | 258,439                  | 6%               | 2,884            | 11,351,783               | 722,059                  | 6%               |
|            | 1998         | 5,071,109                | 631,867                  | 12%              | 3,447            | 12,825,438               | 1,628,343                | 13%              |
|            | 1999<br>2000 | 6,457,482<br>8,508,577   | 1,469,714<br>1,172,992   | 23%<br>14%       | 4,511<br>5,902   | 15,508,468<br>19,440,203 | 3,549,679<br>2,747,609   | 23%<br>14%       |
|            | 2000         | 11,453,720               | 2,031,477                | 18%              | 8,144            | 24,936,673               | 4.502.841                | 18%              |
|            | 2002         | 15,617,243               | 4,129,889                | 26%              | 11,144           | 32,444,884               | 8,685,044                | 27%              |
| Historical | 2003         | 20,978,007               | 3,320,983                | 16%              | 17,381           | 41,633,941               | 6,624,075                | 16%              |
| Experience | 2004         | 26,599,004               | 6,241,153                | 23%              | 18,793           | 50,454,166               | 11,880,541               | 24%              |
|            | 2005         | 28,082,605               | 6,804,563                | 24%              | 19,928           | 50,952,747               | 12,396,414               | 24%              |
|            | 2006<br>2007 | 28,353,106<br>27,938,251 | 7,236,076<br>10,582,193  | 26%<br>38%       | 19,787<br>19,852 | 49,161,822<br>46,299,524 | 12,600,226<br>17,627,243 | 26%<br>38%       |
|            | 2007         | 27,419,750               | 8,154,815                | 30%              | 19,654           | 43,441,448               | 12,987,481               | 30%              |
|            | 2009         | 26,498,424               | 11,148,740               | 42%              | 19,200           | 40,159,832               | 16,973,198               | 42%              |
|            | 2010         | 25,187,102               | 15,825,758               | 63%              | 18,231           | 36,523,397               | 23,059,195               | 63%              |
|            | 2011         | 24,281,006               | 13,405,255               | 55%              | 17,415           | 33,692,333               | 18,672,749               | 55%              |
|            | 2012         | 24,895,541               | 15,249,799               | 61%              | 17,350           | 33,048,891               | 20,307,361               | 61%              |
|            | 2013<br>2014 | 24,058,770               | 14,358,025<br>22,522,172 | 60%<br>102%      | 17,027<br>16.579 | 30,558,715               | 18,310,572               | 60%              |
|            | 2014         | 22,186,152<br>21,244,350 | 23,851,868               | 112%             | 15,985           | 26,966,223<br>24,717,000 | 27,465,201<br>27,822,720 | 102%<br>113%     |
|            | 2016         | 20,937,096               | 21,675,244               | 104%             | 15,787           | 23,318,481               | 24,194,874               | 104%             |
|            | 2017         | 20,041,062               | 26,052,673               | 130%             | 14,983           | 21,376,772               | 27,828,292               | 130%             |
|            | 2018         | 19,402,841               | 22,741,293               | 117%             | 14,061           | 19,825,357               | 23,246,594               | 117%             |
|            | 2019         | 19,461,729               | 23,166,382               | 119%             | 13,223           | 19,046,859               | 22,663,374               | 119%             |
|            | 2020<br>2021 | 21,028,877<br>26,718,828 | 24,115,818<br>24,489,540 | 115%<br>92%      | 12,481<br>11,712 | 19,714,196<br>23,993,621 | 22,579,673<br>21,946,524 | 115%<br>91%      |
|            | 2021         | 27,808,039               | 25,587,353               | 92%              | 11,247           | 23,920,585               | 21,948,323               | 92%              |
|            | 2023         | 26,614,312               | 26,970,078               | 101%             | 10,850           | 21,932,348               | 22,145,141               | 101%             |
|            | 2024         | 24,752,840               | 28,506,186               | 115%             | 10,456           | 19,545,989               | 22,406,633               | 115%             |
|            | 2025         | 23,209,713               | 30,009,496               | 129%             | 10,059           | 17,562,797               | 22,581,834               | 129%             |
|            | 2026<br>2027 | 21,781,664<br>20,424,550 | 31,545,294<br>33,109,254 | 145%<br>162%     | 9,662<br>9,263   | 15,795,851               | 22,725,505<br>22,836,172 | 144%<br>161%     |
|            | 2027         | 19,000,953               | 34,682,673               | 183%             | 9,263<br>8,864   | 14,195,376<br>12,655,542 | 22,903,437               | 181%             |
|            | 2029         | 17,730,458               | 36,442,568               | 206%             | 8,464            | 11,320,614               | 23,042,884               | 204%             |
| Projected  | 2030         | 16,498,332               | 38,353,413               | 232%             | 8,062            | 10,099,544               | 23,222,162               | 230%             |
| Future     | 2031         | 15,299,698               | 40,177,019               | 263%             | 7,660            | 8,980,972                | 23,296,831               | 259%             |
| Experience | 2032         | 14,135,706               | 41,861,724               | 296%             | 7,259            | 7,958,039                | 23,249,205               | 292%             |
| (60 Years) | 2033<br>2034 | 13,012,186<br>11,930,887 | 43,398,250<br>44,769,339 | 334%<br>375%     | 6,859<br>6,462   | 7,026,931<br>6,181,540   | 23,088,465<br>22,818,574 | 329%<br>369%     |
|            | 2034         | 10,895,062               | 45,980,932               | 422%             | 6,070            | 5,416,880                | 22,455,353               | 415%             |
|            | 2036         | 9,906,729                | 46,879,281               | 473%             | 5,683            | 4,727,570                | 21,938,904               | 464%             |
|            | 2037         | 8,967,801                | 47,525,286               | 530%             | 5,304            | 4,108,466                | 21,316,513               | 519%             |
|            | 2038         | 8,080,529                | 47,822,070               | 592%             | 4,933            | 3,554,862                | 20,561,393               | 578%             |
|            | 2039         | 7,246,672                | 47,791,286               | 659%             | 4,573            | 3,062,092                | 19,700,255               | 643%             |
| 1          | 2040<br>2041 | 6,466,917<br>5,741,892   | 47,391,002<br>46,634,496 | 733%<br>812%     | 4,225<br>3,890   | 2,625,339<br>2,240,098   | 18,732,331<br>17,678,321 | 714%<br>789%     |
|            | 2041         | 5,072,058                | 45,503,796               | 897%             | 3,570            | 1,902,118                | 16,546,675               | 870%             |
|            | 2043         | 4,457,419                | 44,094,637               | 989%             | 3,265            | 1,607,296                | 15,382,042               | 957%             |
|            | 2044         | 3,897,157                | 42,511,563               | 1,091%           | 2,977            | 1,351,566                | 14,227,755               | 1,053%           |
|            | 2045         | 3,389,733                | 40,726,538               | 1,201%           | 2,707            | 1,130,962                | 13,078,586               | 1,156%           |
|            | 2046         | 2,933,440                | 38,778,559               | 1,322%           | 2,454            | 941,813                  | 11,950,229               | 1,269%           |
|            | 2047<br>2048 | 2,525,951<br>2,164,677   | 36,617,776<br>34,361,464 | 1,450%<br>1,587% | 2,219<br>2,002   | 780,594<br>644,027       | 10,830,552<br>9,754,653  | 1,387%<br>1,515% |
|            | 2049-2053    | 6,797,971                | 136,732,902              | 2,011%           | 7,336            | 1,832,230                | 34,623,260               | 1,890%           |
|            | 2054-2058    | 2,801,171                | 82,944,154               | 2,961%           | 4,186            | 628,240                  | 17,212,037               | 2,740%           |
|            | 2059-2063    | 1,059,333                | 44,783,676               | 4,228%           | 2,296            | 198,772                  | 7,673,173                | 3,860%           |
|            | 2064-2068    | 368,675                  | 21,783,421               | 5,909%           | 1,156            | 58,532                   | 3,119,817                | 5,330%           |
|            | 2069-2073    | 119,182                  | 9,321,449                | 7,821%           | 493              | 16,244                   | 1,133,348                | 6,977%           |
|            | 2074-2078    | 36,840                   | 3,529,658                | 9,581%           | 161              | 4,355                    | 376,018                  | 8,634%           |
| Histo      | ry           | 447,481,595              | 239,249,349              | 53%              | 324,740          | 713,094,057              | 325,008,384              | 46%              |
| Futur      |              | 412,337,977              | 1,438,898,333            | 349%             | 222,083          | 276,762,859              | 661,745,953              | 239%             |
| Lifetin    | me           | 859,819,573              | 1,678,147,682            | 195%             | 546,823          | 989,856,916              | 986,754,337              | 100%             |

Actuarial Memorandum Exhibits

## Exhibit II Demonstration that the Requested Cumulative Rate Increase Passes the 58%/85% Loss Ratio Minimum MedAmerica and Affinity Partners' Nationwide Experience with Prior Approved Increases Series 11 and Prior Policy Forms

| Accumulated value of initial earned premium  | 676,779,261 x               | 58%   | = | 392,531,972   |
|--|-----------------------------|-------|---|---------------|
| 2a Accumulated value of earned premium 2b Accumulated value of prior premium rate schedule increases (2a - 1)  | 713,094,057<br>36,314,795 x | 85%   | = | 30,867,576    |
| 2b Accumulated value of prior premium rate scriedule increases (2a - 1)  | 30,314,793 X                | 03 /0 | _ | 30,867,376    |
| 3 Present value of future projected initial earned premium   | 91,246,289 x                | 58%   | = | 52,922,848    |
| 4a Present value of future projected premium   | 276,762,859                 |       |   |               |
| 4b Present value of future projected premium in excess of the projected initial earned premiums (4a - 3)   | 185,516,570 x               | 85%   | = | 157,689,084   |
| 5 Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b   |                             |       |   | 634,011,480   |
| 6a Accumulated value of incurred claims without the inclusion of active life reserves  |                             |       |   | 325,008,384   |
| 6b Present value of future projected incurred claims without the inclusion of active life reserves   |                             |       |   | 761,007,847   |
|  |                             |       |   |               |
| 7 Lifetime Incurred Claims with Rate Increase: Sum 6a and 6b   |                             |       |   | 1,086,016,230 |
| 8 Test: 7 is not less than 5   |                             |       |   | Pass          |
| All values are accumulated or discounted at the maximum valuation interest rate for contract reserves applicable for the year of issue, which ranges for | om 3.5% to 5.5%.            |       |   |               |
| Future projected initial earned premium schedule (i.e., without the requested rate increase) reflects the assumed impact of CBUL and RBO.                |                             |       |   |               |
| The future projected incurred claims (item 6b) were increased by 15% to reflect assumptions with moderately adverse experience.                          |                             |       |   |               |

Actuarial Memorandum Exhibits

| Current<br>Assumptions  | Series 11 and Prior |
|-------------------------|---------------------|
| Original<br>Assumptions | Prior to Series 11  |
|                         | Series 11           |

#### Morbidity

Expected claim costs are developed using the 2014 Milliman Long-Term Care Guidelines (Guidelines) with adjustments for underwriting selection, all-lives exposure basis, and four years of retrospective improvement to bring the Guidelines forward to 2018. The claim costs were further adjusted based on historical claim experience by policy form cohort, attained age, duration, individual vs. group, payment type, and coverage type, to the extent credible. These adjustment factors can be found in Exhibit A-5a of Appendix A of the actuarial memorandum.

For Series 5, the original pricing expected nursing home incidence rates and continuance tables were developed from a number of sources, but primarily using data published by the Connecticut Department of Health Services. The 1985 National Nursing Home Survey was also used. Selected frequencies were adjusted up for up to the first 12 years following issue to reflect the favorable morbidity expected as a result of the underwriting process. Frequency and length of treatment of the home care and adult day care benefit were based on the 1982 National Long-Term Care Survey. They are adjusted to reflect the effects of elimination periods, policy maximums, and eligibility standards.

For Series 8 and 9, the Institutional Benefit rates were developed using source data from the 1977 and 1985 National Nursing Home Surveys. The Home and Community Benefits were developed using source data from the 1989 National Long-Term Care Survey. Adjustments were made to the source data to reflect the selection effect of underwriting and the non-duplication of benefits with other payment sources.

The original pricing expected nursing home and home care incidence rates and continuance tables were taken from the 1997 *Guidelines* and adjusted for MedAmerica's experience available at the time this rate schedule was developed relative to the *Guidelines*. All values were adjusted to reflect the effects of product types, elimination periods, policy maximums, and the eligibility standards.

| Current<br>Assumptions  | Series 11 and Prior  |
|-------------------------|----------------------|
| Original<br>Assumptions | Prior to Series 11   |
|                         | Series 11 Individual |
|                         | Series 11 Group      |

#### Mortality

Mortality rates reflect the 2012 Individual Annuitant Mortality (IAM) Basic table. The mortality rates were adjusted based on historical mortality experience by gender, marital status, attained age, and duration. The adjusted 2012IAM table was then brought forward to 2018 using the 2012IAM attained age mortality improvement scale (i.e., G2 projection scale). These adjustment factors can be found in Exhibit A-1a and A-1c of Appendix A of the actuarial memorandum.

Series 5 policy forms used the 1965-70 US Society of Actuaries Basic Mortality Table without selection.

Series 8 and Series 9 policy forms used the 1980 Commissioners Standard Ordinary Basic Mortality Tables assuming a gender mix of 60% female and 40% male and without selection.

1980 Commissioners Standard Ordinary Basic Mortality Table.

Premier Group policy forms use the 1980 Commissioners Standard Ordinary Basic Mortality Table. TNSE policy forms use the 1983 GAM Static table.

# Current Assumptions Series 11 and Prior

#### Lapse Rates

Voluntary lapse rates (excludes benefit expiry) vary by policy duration (ultimate for 10+), attained age (ultimate for 65+), benefit period (lifetime or non-lifetime), inflation protection (auto inflation or none), marital status, policy form cohort, and premium payment option. A summary of the ultimate lapse rates by key characteristics for lifetime-pay policies can be found in Section 6 of the actuarial memorandum.

For the ten-pay option, a reduction of 65% of the durational lapse rates is assumed for durations one through four, a reduction of 70% of the durational lapse rates is assumed for durations five through eight, and 0% lapse thereafter. For the twenty-pay option, a reduction of 50% of the durational lapse rates is assumed for durations one through eight, a reduction of 75% of the durational lapse rates is assumed for durations nine through fifteen, and 0% lapse thereafter.

#### Lapse Rates

Lapse rates vary by policy form series, duration, premium payment option, and issue age.

|          | Series 5 Lapse Rates |           |        |        |        |        |        |        |        |        |        |  |
|----------|----------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|          |                      | Issue Age |        |        |        |        |        |        |        |        |        |  |
| Duration | <61                  | 61        | 62     | 63     | 64     | 65     | 66     | 67     | 68     | 69     | 70+    |  |
| 1        | 20.00%               | 19.00%    | 18.00% | 17.00% | 16.00% | 15.00% | 14.00% | 13.00% | 12.00% | 11.00% | 10.00% |  |
| 2        | 15.00%               | 14.00%    | 13.00% | 12.00% | 11.00% | 10.00% | 9.00%  | 8.00%  | 7.00%  | 6.00%  | 5.00%  |  |
| 3        | 10.00%               | 9.40%     | 8.80%  | 8.20%  | 7.60%  | 7.00%  | 6.40%  | 5.80%  | 5.20%  | 4.60%  | 4.00%  |  |
| 4        | 8.00%                | 7.60%     | 7.20%  | 6.80%  | 6.40%  | 6.00%  | 5.60%  | 5.20%  | 4.80%  | 4.40%  | 4.00%  |  |
| 5        | 6.00%                | 5.70%     | 5.40%  | 5.10%  | 4.80%  | 4.50%  | 4.20%  | 3.90%  | 3.60%  | 3.30%  | 3.00%  |  |
| 6        | 5.00%                | 4.80%     | 4.60%  | 4.40%  | 4.20%  | 4.00%  | 3.80%  | 3.60%  | 3.40%  | 3.20%  | 3.00%  |  |
| 7        | 5.00%                | 4.80%     | 4.60%  | 4.40%  | 4.20%  | 4.00%  | 3.80%  | 3.60%  | 3.40%  | 3.20%  | 3.00%  |  |
| 8        | 5.00%                | 4.80%     | 4.60%  | 4.40%  | 4.20%  | 4.00%  | 3.80%  | 3.60%  | 3.40%  | 3.20%  | 3.00%  |  |
| 9+       | 5.00%                | 4.70%     | 4.40%  | 4.10%  | 3.80%  | 3.50%  | 3.20%  | 2.90%  | 2.60%  | 2.30%  | 2.00%  |  |

| Series 8 Lapse Rates |           |        |  |  |  |  |
|----------------------|-----------|--------|--|--|--|--|
|                      | Issue Age |        |  |  |  |  |
| Duration             | <85 85+   |        |  |  |  |  |
| 1                    | 15.00%    | 12.00% |  |  |  |  |
| 2                    | 10.00%    | 8.00%  |  |  |  |  |
| 3                    | 8.00%     | 6.40%  |  |  |  |  |
| 4                    | 6.00%     | 4.80%  |  |  |  |  |
| 5+                   | 5.00%     | 4.00%  |  |  |  |  |

|          | Series 9 Lapse Rates |           |        |        |        |        |        |        |        |        |        |
|----------|----------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|          |                      | Issue Age |        |        |        |        |        |        |        |        |        |
| Duration | <76                  | 76        | 77     | 78     | 79     | 80     | 81     | 82     | 83     | 84     | 85+    |
| 1        | 15.00%               | 14.70%    | 14.40% | 14.10% | 13.80% | 13.50% | 13.20% | 12.90% | 12.60% | 12.30% | 12.00% |
| 2        | 10.00%               | 9.80%     | 9.60%  | 9.40%  | 9.20%  | 9.00%  | 8.80%  | 8.60%  | 8.40%  | 8.20%  | 8.00%  |
| 3        | 8.00%                | 7.84%     | 7.68%  | 7.52%  | 7.36%  | 7.20%  | 7.04%  | 6.88%  | 6.72%  | 6.56%  | 6.40%  |
| 4        | 6.00%                | 5.88%     | 5.76%  | 5.64%  | 5.52%  | 5.40%  | 5.28%  | 5.16%  | 5.04%  | 4.92%  | 4.80%  |
| 5+       | 5.00%                | 4.90%     | 4.80%  | 4.70%  | 4.60%  | 4.50%  | 4.40%  | 4.30%  | 4.20%  | 4.10%  | 4.00%  |

Policy Form Series 8 and 9 issued business under a group trust in a small number of jurisdictions. The original pricing assumptions for claim costs, mortality, and interest did not vary between individual and group trust business but the original pricing voluntary termination rates did. The Series 8 and 9 group trust original pricing voluntary termination rates are shown in the following table:

|          | Series 8 and 9 Group Trust |           |        |        |        |        |       |       |       |       |
|----------|----------------------------|-----------|--------|--------|--------|--------|-------|-------|-------|-------|
|          |                            | Issue Age |        |        |        |        |       |       |       |       |
| Duration | <25                        | 25-29     | 30-34  | 35-39  | 40-44  | 45-49  | 50-54 | 55-59 | 60-64 | 65+   |
| 1        | 16.00%                     | 15.00%    | 13.50% | 12.00% | 11.00% | 10.00% | 8.00% | 6.00% | 4.00% | 3.00% |
| 2        | 11.00%                     | 10.00%    | 8.50%  | 7.00%  | 7.00%  | 7.00%  | 5.50% | 4.50% | 3.50% | 3.00% |
| 3        | 7.00%                      | 6.00%     | 6.00%  | 6.00%  | 6.00%  | 6.00%  | 5.00% | 4.50% | 3.00% | 2.00% |
| 4        | 5.00%                      | 5.00%     | 5.00%  | 5.00%  | 5.00%  | 5.00%  | 5.00% | 4.50% | 3.00% | 2.00% |
| 5        | 5.00%                      | 5.00%     | 5.00%  | 5.00%  | 5.00%  | 5.00%  | 5.00% | 4.50% | 3.00% | 2.00% |
| 6        | 5.00%                      | 5.00%     | 5.00%  | 5.00%  | 5.00%  | 5.00%  | 5.00% | 4.50% | 3.00% | 2.00% |
| 7 +      | 2.00%                      | 2.00%     | 2.00%  | 2.00%  | 2.00%  | 2.00%  | 2.00% | 2.00% | 2.00% | 2.00% |

The original pricing voluntary lapse rates were expected to be 0.0% for durations 10 and later for policyholders who selected the 10-pay option.

Original Assumptions Prior to Series 11

#### Lapse Rates

Lapse rates vary by duration, premium payment option, and issue age. Lapse rates for the lifetime payment option are provided in the tables below for Series 11 Individual, Premier Group, and TNSE policy forms.

| Series 11 Individual |        |   |        |        |        |        |  |  |  |
|----------------------|--------|---|--------|--------|--------|--------|--|--|--|
|                      |        | Lapse Rates by Issue Age                  |        |        |        |        |  |  |  |
| Duration             | <60    | <60   60-64   65-69   70-74   75-79   80+ |        |        |        |        |  |  |  |
| 1                    | 10.00% | 11.00%                                    | 12.00% | 12.00% | 12.00% | 12.00% |  |  |  |
| 2                    | 7.00%  | 7.00%                                     | 7.00%  | 6.00%  | 4.00%  | 2.00%  |  |  |  |
| 3                    | 5.00%  | 4.00%                                     | 3.00%  | 3.00%  | 3.00%  | 2.00%  |  |  |  |
| 4                    | 3.00%  | 3.00%                                     | 2.00%  | 2.00%  | 2.00%  | 2.00%  |  |  |  |
| 5                    | 3.00%  | 2.00%                                     | 2.00%  | 2.00%  | 2.00%  | 2.00%  |  |  |  |
| 6+                   | 2.00%  | 2.00%                                     | 2.00%  | 2.00%  | 2.00%  | 2.00%  |  |  |  |

| Premier Group |        |        |           |            |        |        |  |  |
|---------------|--------|--------|-----------|------------|--------|--------|--|--|
|               |        | La     | pse Rates | by Issue A | ge     |        |  |  |
| Duration      | <60    | 60-64  | 65-69     | 70-74      | 75-79  | 80+    |  |  |
| 1             | 10.00% | 11.00% | 12.00%    | 12.00%     | 12.00% | 12.00% |  |  |
| 2             | 7.00%  | 7.00%  | 7.00%     | 6.00%      | 4.00%  | 2.00%  |  |  |
| 3             | 5.00%  | 4.00%  | 3.00%     | 3.00%      | 3.00%  | 2.00%  |  |  |
| 4             | 3.00%  | 3.00%  | 2.00%     | 2.00%      | 2.00%  | 2.00%  |  |  |
| 5             | 3.00%  | 2.00%  | 2.00%     | 2.00%      | 2.00%  | 2.00%  |  |  |
| 6+            | 2.00%  | 2.00%  | 2.00%     | 2.00%      | 2.00%  | 2.00%  |  |  |

| TNSE     |       |         |             |         |       |  |  |  |
|----------|-------|---------|-------------|---------|-------|--|--|--|
|          |       | Lapse F | Rates by Is | sue Age |       |  |  |  |
| Duration | <60   | 60-64   | 65-69       | 70-79   | 80+   |  |  |  |
| 1        | 5.00% | 5.00%   | 5.00%       | 4.00%   | 3.00% |  |  |  |
| 2        | 5.00% | 5.00%   | 5.00%       | 4.00%   | 3.00% |  |  |  |
| 3        | 5.00% | 4.00%   | 3.00%       | 3.00%   | 3.00% |  |  |  |
| 4        | 4.00% | 4.00%   | 3.00%       | 3.00%   | 3.00% |  |  |  |
| 5        | 4.00% | 3.00%   | 3.00%       | 3.00%   | 3.00% |  |  |  |
| 6+       | 3.00% | 3.00%   | 3.00%       | 3.00%   | 3.00% |  |  |  |

For the 10-pay option, a reduction of 50% of these lapse rates is assumed for durations 1 to 6, and 0% lapse thereafter. For the 20-pay option, a reduction of 50% of these lapse rates is assumed for durations 1 to 13, and 0% lapse thereafter.

Original Ser

Series 11

| Current<br>Assumptions  | Series 11 and Prior |
|-------------------------|---------------------|
| Original<br>Assumptions | Series 11 and Prior |

#### **Benefit Expiry Rates**

Benefit expiry rates reflect assumed policy termination due to exhaustion of benefits on limited benefit period policies. The rates are based on the 2017 *Guidelines* with adjustments for historical benefit expiry experience and vary by gender, benefit period, and attained age. A table containing the benefit expiry rates is provided in Section 6 of the actuarial memorandum.

Benefit expiry was not separated from the lapse assumption.

| Current<br>Assumptions  | Series 11 and Prior  |  |
|-------------------------|----------------------|--|
|                         | Prior to Series 11   |  |
| Original<br>Assumptions | Series 11 Individual |  |
|                         | Series 11 Group      |  |

#### Interest Rate

The current most-likely earnings rate assumption is 4.75%. This rate represents MedAmerica's expectation of its long-term investment earnings rate based on the average net investment earnings rate projected for MedAmerica's 2018 cash flow testing.

The maximum valuation interest rate applicable to the year of issue ranges from 3.5% to 5.5% and averages 4.5%.

Series 5 policy forms used an original pricing earnings rate assumption of 7.10% and Series 8 and 9 policy forms used an original pricing earnings rate assumption of 7.50%.

An original pricing earnings rate assumption of 7.50% was assumed.

Premier Group policy forms used an original pricing earnings rate assumption of 7.50% and TNSE policy forms used an original pricing earnings rate assumption of 6.00%.

| Current<br>Assumptions  | Series 11 and Prior |
|-------------------------|---------------------|
| Original<br>Assumptions | Series 11 and Prior |

#### Improvement

Annual improvement in the mortality and morbidity assumptions is assumed for 10 years starting in 2019. Annual mortality improvement factors vary by attained age and gender based on the G2 improvement scale from the 2012IAM table. Annual morbidity improvement is assumed to be 1.0%.

No mortality or morbidity improvement was assumed.

This appendix describes the development of and justification for the current actuarial assumptions used in this filing.

The persistency and morbidity assumptions were developed using historical experience and predictive analytics. Where actual experience was limited or did not exist, industry experience and actuarial judgment was also used. The experience used to develop these assumptions includes historical experience of MedAmerica Insurance Company (MAPA); MAPA's two sister companies, MedAmerica Insurance Company of Florida (MAFL) and MedAmerica Insurance Company of New York (MANY) (MAPA, MAFL, and MANY collectively referred to as MedAmerica); and MedAmerica's affinity partners that issued the same products. Additionally, experience on other blocks of business originally issued by MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business is also used. For persistency, policy termination experience from January 2008 through December 2017, with runout through March 2018, was used. For morbidity, claim experience from January 2004 through June 2016 was used with six months of runout.

Improvement assumptions for mortality and morbidity were developed based on individual annuitant or industry experience, along with actuarial judgment. The rate increase dependent assumptions were developed using historical experience, and actuarial judgment where experience was limited or did not exist.

The sections that follow provide more detail on the development of and justification for the current assumptions that are material to the projections in this filing.

#### Persistency

The policy persistency assumptions were developed based on detailed historical experience from January 2008 through December 2017, with runout through March 2018, for MedAmerica's organic (including affinity partners) and acquired business. Experience adjustment factors were developed using predictive analytics as described in the Predictive Analytics section below.

#### Mortality

The mortality assumption utilizes the 2012 Individual Annuitant Mortality (IAM) Basic table with experience adjustments.

Exhibit A-1 supports the mortality assumption and provides the following information by marital status, gender, issue era (old versus new), policy duration, and attained age. Policies issued prior to January 1, 1998 are treated as "old" and policies issued on or after January 1, 1998 are treated as "new". Prior to Series 11 policies are considered part of the "old" era bucket as the majority of policies were issued prior to January 1, 1998. Series 11 Individual and Group policies are considered part of the "new" era bucket as the majority of policies were issued on or after January 1, 1998.

- Exhibit A-1a Provides the adjustment factors that are to be applied to the 2012IAM hazard rates; the adjusted hazard rates are converted back into mortality probabilities to create the mortality assumption produced by the predictive model. Attained age adjustment factors are applicable to only policy durations 7 and later.
- Exhibit A-1b Provides a summary of actual-to-modeled (A:M) mortality experience for all products of MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business.
  - Policy year exposure [A] reflects the length of time a covered life is exposed to the risk of death (i.e., exact exposure basis).
  - Actual deaths [B]
  - Mortality probabilities underlying actual experience [C], 2012IAM [D], and the modeled assumption [E]. The modeled mortality probabilities capture the adjustment factors from Exhibit A-1a that were produced by the predictive model. Mortality probabilities were calculated by first calculating the hazard rate of mortality, then transforming into a probability. For example, the actual mortality probability [C] = 1 EXP(-( [B] / [A] )).
  - A:M ratios are calculated as actual mortality probabilities to the 2012IAM mortality probabilities [F] and to the modeled assumption [G]. The modeled A:M [G] provides an indication of fit. This fit will not be perfect (i.e., ratios deviate from 1.0) because the main goal is to develop an assumption that generalizes well to new data by balancing assumption complexity and fit on the historical experience.

Exhibit A-1c – Provides an additional attained age adjustment that was developed to better align the composite termination (i.e., mortality and voluntary lapse combined) assumption with actual experience. Similar to the attained age adjustment factors in Exhibit A-1a, the additional adjustments are applicable to only policy durations 7 and later. The adjustment from Exhibit A-1c is excluded from Exhibit A-1b, but it is included with the composite termination assumptions in Exhibit A-3 described below.

For projection purposes, the adjusted 2012IAM table is brought forward to 2018 using the G2 improvement scale.

Lifetime-Pay Voluntary Lapse Assumption

The voluntary lapse assumption reflects the 2017 cash flow testing voluntary lapse assumption with experience adjustments for attained age, benefit period (lifetime or non-lifetime), inflation protection option (auto inflation or none), marital status, and product cohort.

The attained age adjustment factors developed from the predictive model produced a U-shaped pattern (i.e., decreased and then increased) by attained age. However, the attained age adjustment factors are held constant for ages 65 and older to produce an ultimate voluntary lapse assumption that is constant rather than increasing by attained age. The adjustments are held constant after this point because an increasing attained age lapse trend is not widely used in the industry, and this increasing lapse trend may be due to miscoding a death or underreporting of deaths in the Social Security Death Master File. An additional attained age adjustment to mortality was developed (Exhibit A-1c) in order to capture these terminations (i.e., higher lapses at older attained ages) such that the combined mortality and voluntary lapse assumption better aligns with actual experience as described in Exhibit A-3 below.

The ultimate voluntary lapse probabilities are shown in Section 6 of the actuarial memorandum. These ultimate voluntary lapse probabilities are applicable for attained ages 65 and older at policy durations 10 and later. Only these ultimate voluntary lapse probabilities are material to the projections given the age of this cohort.

Exhibit A-2 supports the voluntary lapse assumption. It provides a comparison of A:M voluntary lapse experience for all products of MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business, and includes the following:

- Policy year exposure [A] reflects the length of time a covered life is exposed to the risk of lapse (i.e., exact exposure basis).
- Actual lapses [B]
- o Lapse probabilities underlying actual experience [C], unadjusted [D], and the modeled assumption [E]. The modeled voluntary lapse probabilities capture the assumptions produced by the predictive model (i.e., include the U-shaped attained age adjustments) to demonstrate the fit of the predictive model. The attained-age cap is captured with the composite termination assumptions in Exhibit A-3 as described below. Lapse probabilities were calculated by first calculating the hazard rate of lapse, then transforming into a probability. For example, the actual lapse probability [C] = 1 EXP(-( [B] / [A] )).
- o A:M ratios are calculated as actual lapse probabilities to the unadjusted lapse probabilities [F] and the modeled assumption [G]. The modeled A:M [G] provides an indication of fit. This fit will not be perfect (i.e., ratios deviate from 1.0) because the main goal is to develop an assumption that generalizes well to new data by balancing assumption complexity and fit on the historical experience.

The experience underlying Exhibit A-2 reflects lifetime-pay policies for policy durations 10 and later to focus on the fit of the ultimate voluntary lapse assumption and excludes "shock" lapses. For certain policies there have been prior rate increases and thus the option to lapse with a contingent benefit (i.e., shock lapse). Additionally, some policy forms offered an optional shortened non-forfeiture benefit. Policies that elected one of these options were not counted as a voluntary lapse; however, their annual policy exposure was valued up to the date of election.

#### Limited-Pay Voluntary Lapse Assumption

For the limited-pay options, the voluntary lapse assumption is a function of the lifetime-pay voluntary lapse assumption and is similar to that used in original pricing. The smoothed lapse rates are a scalar of the lifetime-pay lapse rates. Approximately 4% of the in-force policies have a limited-pay option that will be subject to the voluntary lapse assumption after the first five years of the projection because they will not yet be paid-up due to the length of

the payment option for these policies. As a result, the impact of the limited-pay voluntary lapse assumptions on the projections is assumed to be immaterial.

For the ten-pay and twenty-pay options, the scalars were developed from a comparison of the lifetime-pay derived lapse rates to the limited-pay option's derived lapse rates based on MedAmerica and its affinity partners' experience on all products combined. The relationships derived from this analysis were used to develop the smoothed lapse assumptions as shown in Section 6 of the actuarial memorandum.

#### Composite Termination

Exhibit A-3 supports the composite termination (i.e., mortality and voluntary lapse combined) assumption. It provides a comparison of actual-to-expected (A:E) composite termination experience for all products of MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business, and includes the following:

- Policy year exposure [A] reflects the length of time a covered life is exposed to the risk of termination (i.e., exact exposure basis).
- Actual composite terminations [B]
- Composite termination probabilities underlying actual experience [C] and the expected assumption [D]. The expected composite termination probabilities capture all of the experience adjustments for mortality (i.e., Exhibits A-1a and A-1c) and voluntary lapse (i.e., attained age cap). Termination probabilities were calculated by first calculating the hazard rate of termination, then transforming into a probability. For example, the actual termination probability [C] = 1 EXP(-( [B] / [A] )).
- A:E ratios are calculated as actual termination probabilities to the expected composite termination probabilities [E]. The A:E [E] provides an indication of fit. This fit will not be perfect (i.e., ratios deviate from 1.0) because the main goal is to develop an assumption that generalizes well to new data by balancing assumption complexity and fit on the historical experience.

The experience underlying Exhibit A-3 reflects lifetime-pay policies for policy durations 10 and later to focus on the fit of the ultimate composite termination assumption. It also excludes "shock" lapses as described above for Exhibit A-2.

#### Benefit Expiry

Benefit expiry probabilities reflect assumed policy lapses due to exhaustion of benefits based on the 2017 Milliman *Long-Term Care Guidelines (Guidelines)* with experience adjustments and vary by attained age, gender, and benefit period. Insureds with lifetime benefits do not have an expiry assumption (i.e., probability of 0%). The final benefit expiry assumptions are provided in Section 6 of the actuarial memorandum.

Exhibit A-4 supports the benefit expiry assumption. It provides a comparison of A:E benefit expiry experience for all products of MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business, and includes the following:

- Policy year exposure [A] reflects the length of time a covered life is exposed to the risk of benefit expiry (i.e., exact exposure basis).
- Actual benefit expiries [B]
- Benefit expiry probabilities underlying actual experience [C], 2017 Guidelines [D], and the expected assumption [E]. The expected benefit expiry probabilities capture the assumptions from Section 6 of the actuarial memorandum. Benefit expiry probabilities were calculated by first calculating the hazard rate of benefit expiry, then transforming into a probability. For example, the actual benefit expiry probability [C] = 1 EXP(-( [B] / [A] )).
- A:E ratios are calculated as actual benefit expiry probabilities to the 2017 *Guidelines* probabilities [F] and the expected assumption [G]. The expected A:E [G] provides an indication of fit. This fit will not be perfect (i.e., ratios deviate from 1.0) because the main goal is to develop an assumption that generalizes well to new data by balancing assumption complexity and fit on the historical experience.

The experience underlying Exhibit A-4 excludes lifetime benefit periods because benefit expiry is not applicable. It also excludes ages less than 65 because the assumed benefit expiry assumption is 0% and actual experience reflects less than 2% of actual expiries. The experience underlying Exhibit A-4 reflects policy durations 7 and later.

#### Morbidity

The claim costs were developed using the 2014 *Guidelines* with experience adjustment factors based on all products of MedAmerica, its affinity partners, and any acquired business from January 2004 through June 2016, with runout through December 2016. The experience adjustment factors were developed using predictive analytics as described in the Predictive Analytics section below.

- Exhibit A-5a provides the adjustment factors that are to be applied to the 2014 Guidelines claim costs for the Series 11 and Prior policy forms.
- Exhibit A-5b provides a summary of A:E experience for the Series 11 and Prior policy forms.
  - Exposure [A] reflects the length of time a covered life is in force (i.e., an exact exposure basis).
  - Actual incurred claim counts [B] and dollars [C] are based on historical claim experience from inception through June 2016, with runout through December 2016. Actual incurred claim dollars were valued as paid claims plus claim reserves. Paid claims and claim reserves were discounted to the year of incurral.
  - o 2014 Guidelines incurred claims [D] are valued as the 2014 Guidelines claim costs multiplied by actual all-lives exposure. The claim costs vary by gender, attained age, policy duration, benefit period, elimination period, payment type, level of home care coverage, inflation type, and coverage type (comprehensive/facility only/home health care only). Policy design, claims adjudication, and degree of underwriting were considered in developing the claim costs.
  - Expected incurred claims [E] are calculated by applying each applicable adjustment from Exhibit A-5a to the 2014 Guidelines incurred claims [D].
  - A:E ratios are calculated as actual incurred claims to the 2014 Guidelines incurred claims [F] and expected incurred claims [G]. The expected A:E [G] provides an indication of fit. This fit will not be perfect (i.e., ratios deviate from 1.0) because the main goal is to develop an assumption that generalizes well to new data by balancing assumption complexity and fit on the historical experience.
- Exhibit A-5c provides information similar to Exhibit A-5b, except provides the experience for all products of MedAmerica and its affinity partners, and MedAmerica's other acquired blocks of business.

Prior to developing the experience adjustment factors, the 2014 *Guidelines* were adjusted for an assumed level of morbidity improvement. The 2014 *Guidelines* claim costs reflect morbidity improvement such that they are as of calendar year 2014. We assume this improvement has also occurred in the actual historical experience. Therefore, a backward or forward projection of morbidity improvement was applied to the expected claim costs on a seriatim basis based on the calendar year in which a given policy's duration fell. An annual improvement level of 1.0% was used in the backward or forward projections.

For projection purposes, the 2014 Guidelines are brought forward to 2018 using 1% improvement.

#### Prospective Improvement

For projected mortality improvement, the G2 improvement scale from the 2012IAM mortality table was used. The G2 improvement scale varies by attained age and gender. It is applied beginning in the first projection year and continues for 10 projection years.

For projected morbidity improvement, a level of 1.0% is assumed for 10 years beginning January 1, 2019. This assumption is set based on the underlying morbidity improvement from the 2014 *Guidelines*. This level is also reasonable based on the Society of Actuaries (SOA) July 2016 study, *Long Term Care Morbidity Improvement Study: Estimates for the Non-Insured U.S. Elderly Population Based on the National Long Term Care Survey 1984-2004.* This study reported population annual morbidity improvement of 2.3% for unisex, 2.5% for males, and 2.1% for females. The SOA July 2016 study uses population data, so it is uncertain how well these findings will translate to an insured population. The SOA June 2011 study, *Global Mortality Improvement Experience and Projection Techniques*, suggests that an annuitant cohort has more mortality improvement over the general population, so it is

possible that this could be true for morbidity as well. Based on these studies, a reasonable range for morbidity improvement is between 0.0% to 2.5% for males and 0.0% to 2.1% for females for 10 to 20 years.

#### Rate Increase Dependent Assumptions

At the time of a rate increase, insureds have options to elect a contingent benefit upon lapse (CBUL) or reduced benefit options (RBO). Adverse selection is assumed relative to CBUL and RBO elections. These insured behavior assumptions are provided in Section 6 of the actuarial memorandum. These assumptions are based on MedAmerica and its affinity partners, and MedAmerica's acquired business's combined actual CBUL and RBO election rate experience and actuarial judgment—particularly at the higher rate increase magnitudes where limited experience exists.

Contingent Benefit Upon Lapse Election

The assumed CBUL election rate is based on the requested rate increase and is applied on a seriatim basis. No CBUL elections are assumed for limited-pay policies.

#### Reduced Benefit Options

We assume that those electing RBO will reduce their benefits so that premiums after the increase are closer to those before the increase. We assume that the percent reduction in premium corresponds to an equivalent percent reduction in claims. We assume an RBO election rate based on the requested rate increase and it is applied on a seriatim basis. No RBO elections are assumed for limited-pay policies.

The reduction to premium and claims then varies based on the level of the rate increase and can then be determined as follows:

Reduction to premium and claims due to the election of RBO

= 1 – (Average premium level after the rate increase with RBO election / Premium level after the full rate increase without any RBO election), where

Average premium level after the rate increase with RBO election

= weighted average premium level of those assumed to elect RBO with those assumed to accept the full rate increase

### Adverse Selection

The adverse selection assumption is a function of the CBUL and RBO election rates, such that the relative increase to morbidity due to adverse selection varies by the rate increase's magnitude. The increase to morbidity due to adverse selection was developed from the following formula and actuarial judgment. We assume that at the time of the rate increase, insureds that elect a CBUL will be selective in that their relative morbidity is 25% lower than that of the remaining pool. Similarly, we assume that at the time of the rate increase, insureds that elect an RBO will be selective in that their relative morbidity is 12.5% lower than that of the remaining pool.

PoolMorb = AdvSelMorb x (1 - CBUL - RBO) + [(1 - 25%) x AdvSelMorb] x CBUL + [(1 - 12.5%) x AdvSelMorb] x RBO, where

PoolMorb = morbidity of the pool before the rate increase = 1.0

AdvSelMorb = adverse morbidity of the remaining pool after the rate increase due to selective lapses

CBUL = percentage of insureds that elect CBUL RBO = percentage of insureds that elect RBO

Solving the above for the adverse selection component results in the following formula:

Adverse Selection = 1 / (1 - 25% x CBUL - 12.5% x RBO)

#### **Predictive Analytics**

In developing the persistency and morbidity experience adjustment factors, predictive analytics was employed in the form of a penalized generalized linear model (GLM).

A penalized GLM is similar to a traditional GLM. The only difference is that it adds an additional constraint that penalizes the size of the model's coefficients in order to control overfitting the model to the historical data. This penalty placed on the coefficients can be seen as a credibility lever, which controls how much weight is given to the company's actual experience. A high penalty would give no weight to the data, leaving the benchmark assumption (i.e., the 2014 *Guidelines* for morbidity) unadjusted. No penalty would give full weight to the company's actual data potentially making large adjustments to the benchmark, which could be overfitting the actual experience. When using a penalized GLM, it is important to choose a penalty that gives the right amount of weight to the actual data to avoid underfitting or overfitting the experience.

A standard approach for choosing such a penalty is to use a k-fold cross-validation to test a series of penalty values. A k-fold cross-validation splits the data into k subsets and iteratively trains and tests the model independently on each subset of the data. This process gives an estimation of how well a model will generalize to new data that was not used to develop the assumption. Through the k-fold cross-validation we evaluated the impact the penalty had on the model's generalizability by testing a range of 100 penalties. We selected a penalty to balance minimizing the k-fold cross-validation prediction error with the generalizability of the model. This allows for a statistically robust and automated process to determine the amount of weight to give actual experience versus the benchmark assumption.

Exhibit A-1a Mortality Hazard Rate Adjustment Factors All Products

| Age         Male         Female           <55         0.99         1.00           55         0.97         0.98           56         0.97         0.98           57         0.95         0.97           58         0.93         0.96           59         0.91         0.93           60         0.89         0.89           61         0.85         0.86           62         0.85         0.86           63         0.84         0.85           64         0.84         0.85           65         0.87         0.84           65         0.87         0.84           65         0.87         0.84           65         0.87         0.84           66         0.88         0.85           0.81         1.01           65         0.87         0.84           66         0.88         0.85           0.81         1.01           66         0.88         0.85           0.81         1.01           67         0.87         0.82           0.81         1.01           0.92         0.  | Attained | Ger  | nder | ı | Marital | Status |
|---|----------|------|------|---|---------|--------|
| -555         0.99         1.00         0.99         1.01           55         0.97         0.98         0.95         1.01           56         0.97         0.98         0.95         1.01           57         0.95         0.97         0.93         1.02           58         0.93         0.96         0.91         1.02           59         0.91         0.93         0.89         1.02           60         0.89         0.89         0.88         1.01           61         0.85         0.86         0.85         1.00           62         0.85         0.86         0.85         1.00           63         0.84         0.85         0.80         0.85         1.00           63         0.84         0.85         0.82         1.01         0.00< |          |      |      |   |         |        |
| 55         0.97         0.98         0.95         1.01           56         0.97         0.98         0.95         1.01           57         0.95         0.97         0.93         1.02           58         0.93         0.96         0.91         1.02           59         0.91         0.93         0.89         1.02           60         0.89         0.89         0.88         1.01           61         0.85         0.86         0.85         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           68         0.91         0.82         0.81         1.01           68         0.91         0.82         0.81         1.02           70         0.97         0.85         0.85         1.02   |          |      |      |   |         |        |
| 56         0.97         0.98         0.95         1.01           57         0.95         0.97         0.93         1.02           58         0.93         0.96         0.91         1.02           59         0.91         0.93         0.89         1.02           60         0.89         0.89         1.02           60         0.89         0.89         1.01           61         0.85         0.89         0.88         1.01           61         0.85         0.86         0.84         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           68         0.91         0.82         0.81         1.01           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           71         0.99   |          |      |      |   |         |        |
| 57         0.95         0.97         0.93         1.02           58         0.93         0.96         0.91         1.02           59         0.91         0.93         0.89         1.02           60         0.89         0.89         0.88         1.01           61         0.85         0.86         0.84         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.85         1.02           71         0.99         0.84         1.02           71         0.99         0.84         1.02           73         1.03         0.85   | l .      |      |      |   |         |        |
| 58         0.93         0.96         0.91         1.02           59         0.91         0.93         0.89         1.02           60         0.85         0.86         0.85         1.00           61         0.85         0.86         0.85         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           68         0.91         0.82         0.81         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03   |          |      |      |   |         |        |
| 59         0.91         0.93         0.89         1.02           60         0.89         0.89         0.88         1.01           61         0.85         0.86         0.85         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.84         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03   |          |      |      |   |         |        |
| 60         0.89         0.89         0.89         0.88         1.01           61         0.85         0.86         0.85         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           71         0.99         0.84         1.02         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90  |          |      |      |   |         |        |
| 61         0.85         0.86         0.84         1.00           62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.87         1.04           73         1.03         0.85         0.87         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04   |          |      |      |   |         |        |
| 62         0.85         0.86         0.84         1.00           63         0.84         0.85         0.82         1.00           64         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.01           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.87         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78   | 61       |      | 0.86 |   | 0.85    |        |
| 63         0.84         0.85         0.82         1.00           64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.02   |          |      |      |   |         |        |
| 64         0.84         0.84         0.81         1.01           65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04  |          |      | 0.85 |   | 0.82    |        |
| 65         0.87         0.84         0.81         1.01           66         0.88         0.85         0.81         1.01           67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.85         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.89         1.03           72         1.02         0.85         0.89         1.03           74         1.04         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04  |          |      | 0.84 |   | 0.81    |        |
| 67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04   |          |      |      |   |         |        |
| 67         0.87         0.82         0.81         1.00           68         0.91         0.82         0.82         1.01           69         0.95         0.85         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04   | 66       | 0.88 | 0.85 |   | 0.81    | 1.01   |
| 68         0.91         0.82         0.84         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.05           79         1.08         0.94         0.95         1.05           80         1.09         0.93         0.96         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02   |          |      |      |   |         |        |
| 69         0.95         0.85         0.85         1.02           70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.93         0.96         1.04           84         1.03         0.89         0.97         1.04   | 68       |      | 0.82 |   |         |        |
| 70         0.97         0.85         0.85         1.02           71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.05           79         1.08         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04   |          |      |      |   |         |        |
| 71         0.99         0.84         0.86         1.03           72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.99         1.02           85         1.06         0.92         0.99         1.01   |          |      |      |   |         |        |
| 72         1.02         0.85         0.87         1.04           73         1.03         0.85         0.89         1.03           74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99   |          |      |      |   |         |        |
| 74         1.04         0.85         0.90         1.04           75         1.05         0.86         0.91         1.04           76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01   | 72       | 1.02 | 0.85 |   | 0.87    | 1.04   |
| 75         1.05         0.86           76         1.08         0.87           77         1.11         0.92         0.94           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.04           84         1.03         0.89         0.96         1.04           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03     <   | 73       | 1.03 | 0.85 |   | 0.89    | 1.03   |
| 76         1.08         0.87         0.92         1.04           77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.04           84         1.03         0.89         0.95         1.04           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02   | 74       | 1.04 | 0.85 |   | 0.90    | 1.04   |
| 77         1.11         0.92         0.94         1.07           78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03   | 75       | 1.05 | 0.86 |   |         | 1.04   |
| 78         1.09         0.94         0.95         1.05           79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         0.99         1.05   | 76       | 1.08 | 0.87 |   | 0.92    | 1.04   |
| 79         1.08         0.94         0.95         1.02           80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03   | 77       | 1.11 | 0.92 |   | 0.94    | 1.07   |
| 80         1.09         0.93         0.96         1.04           81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.05   |          |      |      |   | 0.95    | 1.05   |
| 81         1.10         0.95         0.97         1.04           82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.05           97         1.00         1.02         0.99         1.05   |          |      |      |   |         |        |
| 82         1.08         0.93         0.96         1.04           83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05   |          |      |      |   |         |        |
| 83         1.08         0.91         0.95         1.04           84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04   |          |      |      |   |         |        |
| 84         1.03         0.89         0.96         1.02           85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.03   |          |      |      |   |         |        |
| 85         1.06         0.92         0.99         1.02           86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.03           101         0.99         1.03         1.00         1.03  |          |      |      |   |         |        |
| 86         1.04         0.93         0.99         1.01           87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.03           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.03   |          |      |      |   |         |        |
| 87         1.04         0.90         1.00         0.99           88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.03           101         0.99         1.02         1.00         1.02  |          |      |      |   |         |        |
| 88         1.07         0.90         1.00         0.99           89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.03           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.01   |          |      |      |   |         |        |
| 89         1.13         0.94         0.99         1.01           90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00   |          |      |      |   |         |        |
| 90         1.09         0.95         0.99         1.02           91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00   |          |      |      |   |         |        |
| 91         1.07         0.96         1.00         1.02           92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.03           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00  |          |      |      |   |         |        |
| 92         1.09         1.00         1.01         1.03           93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00   |          |      |      |   |         |        |
| 93         1.06         1.01         1.02         1.03           94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00  |          |      |      |   |         |        |
| 94         1.03         1.00         1.01         1.03           95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00   |          |      |      |   |         |        |
| 95         1.01         1.00         0.99         1.04           96         1.01         1.01         0.99         1.05           97         1.00         1.02         0.99         1.05           98         1.00         1.04         0.99         1.05           99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00  |          |      |      |   |         |        |
| 96     1.01     1.01     0.99     1.05       97     1.00     1.02     0.99     1.05       98     1.00     1.04     0.99     1.05       99     0.99     1.04     1.00     1.04       100     0.99     1.03     1.00     1.03       101     0.99     1.02     1.00     1.02       102     0.98     1.01     0.99     1.01       103     0.99     1.01     0.99     1.00   |          |      |      |   |         |        |
| 97     1.00     1.02     0.99     1.05       98     1.00     1.04     0.99     1.05       99     0.99     1.04     1.00     1.04       100     0.99     1.03     1.00     1.03       101     0.99     1.02     1.00     1.02       102     0.98     1.01     0.99     1.01       103     0.99     1.01     0.99     1.00  |          |      |      |   |         |        |
| 98     1.00     1.04     0.99     1.05       99     0.99     1.04     1.00     1.04       100     0.99     1.03     1.00     1.03       101     0.99     1.02     1.00     1.02       102     0.98     1.01     0.99     1.01       103     0.99     1.01     0.99     1.00   |          |      |      |   |         |        |
| 99         0.99         1.04         1.00         1.04           100         0.99         1.03         1.00         1.03           101         0.99         1.02         1.00         1.02           102         0.98         1.01         0.99         1.01           103         0.99         1.01         0.99         1.00  |          |      |      |   |         |        |
| 100     0.99     1.03       101     0.99     1.02       102     0.98     1.01       103     0.99     1.01       100     1.03       1.00     1.02       1.01     0.99     1.01       1.02     0.99     1.00  |          |      |      |   |         |        |
| 101     0.99     1.02     1.00     1.02       102     0.98     1.01     0.99     1.01       103     0.99     1.01     0.99     1.00   |          |      |      |   |         |        |
| 102     0.98     1.01     0.99     1.01       103     0.99     1.01     0.99     1.00   |          |      |      |   |         |        |
| 103 0.99 1.01 0.99 1.00   |          |      |      |   |         |        |
|   |          |      |      |   |         |        |
|   | 104+     | 0.99 | 1.00 |   | 1.00    | 1.01   |

|          | Era B | ucket |
|----------|-------|-------|
| Duration | Old   | New   |
| 1        | 0.99  | 0.81  |
| 2        | 0.99  | 0.70  |
| 3        | 0.99  | 0.63  |
| 4        | 0.99  | 0.59  |
| 5        | 0.99  | 0.56  |
| 6        | 0.99  | 0.66  |
| 7        | 0.99  | 0.75  |
| 8        | 0.99  | 0.81  |
| 9        | 0.99  | 0.84  |
| 10       | 0.99  | 0.86  |
| 11       | 0.99  | 0.90  |
| 12       | 0.99  | 0.92  |
| 13       | 0.99  | 0.93  |
| 14       | 0.99  | 0.96  |
| 15       | 1.01  | 0.98  |
| 16       | 1.01  | 0.98  |
| 17       | 1.04  | 0.98  |
| 18       | 1.04  | 0.98  |
| 19       | 1.04  | 0.98  |
| 20+      | 1.03  | 0.98  |

Exhibit A-1b
Actual-to-Modeled Mortality Experience 2008-2017
Policy Durations 7+
All Products

| Policy or       | Policy Year | Ad     | ctual       | Mortality I | Probability | Actual-to-Modeled | Mortality Probability |
|-----------------|-------------|--------|-------------|-------------|-------------|-------------------|-----------------------|
| Policyholder    | Exposure    | Deaths | Probability | 2012IAM     | Modeled     | 2012IAM           | Modeled               |
| Characteristic  | [A]         | [B]    | [C]         | [D]         | [E]         | [F] = [C] / [D]   | [G] = [C] / [E]       |
|                 |             |        |             |             |             |                   |                       |
| Marital Status  |             |        |             |             |             |                   |                       |
| Married         | 386,931     | 5,992  | 1.5%        | 1.8%        | 1.6%        | 0.86              | 0.99                  |
| Single          | 392,172     | 9,243  | 2.3%        | 2.4%        | 2.3%        | 0.97              | 1.00                  |
| Gender          |             |        |             |             |             |                   |                       |
| Female          | 452,361     | 7,931  | 1.7%        | 2.0%        | 1.7%        | 0.88              | 0.99                  |
| Male            | 326,742     | 7,304  | 2.2%        | 2.3%        | 2.2%        | 0.98              | 1.00                  |
| Era             |             |        |             |             |             |                   |                       |
| New             | 569,023     | 7,175  | 1.3%        | 1.5%        | 1.3%        | 0.84              | 0.99                  |
| Old             | 210,080     | 8,060  | 3.8%        | 3.7%        | 3.8%        | 1.02              | 1.00                  |
| Policy Duration |             |        |             |             |             | •                 |                       |
| 7-9             | 204,938     | 1,429  | 0.7%        | 1.0%        | 0.7%        | 0.70              | 0.97                  |
| 10-14           | 315,361     | 4,614  | 1.5%        | 1.7%        | 1.5%        | 0.87              | 0.99                  |
| 15-19           | 172,971     | 5,090  | 2.9%        | 2.9%        | 2.9%        | 1.00              | 1.01                  |
| 20-24           | 69,899      | 3,138  | 4.4%        | 4.3%        | 4.4%        | 1.03              | 1.00                  |
| 25+             | 15,933      | 964    | 5.9%        | 5.7%        | 5.9%        | 1.03              | 0.99                  |
| Attained Age    | -           |        |             |             |             | -                 |                       |
| <65             | 278,751     | 776    | 0.3%        | 0.4%        | 0.3%        | 0.71              | 0.95                  |
| 65-69           | 121,892     | 789    | 0.6%        | 0.9%        | 0.7%        | 0.70              | 0.98                  |
| 70-74           | 121,461     | 1,396  | 1.1%        | 1.4%        | 1.2%        | 0.80              | 0.99                  |
| 75-79           | 111,354     | 2,505  | 2.2%        | 2.4%        | 2.2%        | 0.93              | 1.00                  |
| 80-84           | 84,877      | 3,624  | 4.2%        | 4.3%        | 4.2%        | 0.97              | 1.00                  |
| 85+             | 60,768      | 6,145  | 9.6%        | 9.5%        | 9.6%        | 1.01              | 1.00                  |
| Total           | 779,103     | 15,235 | 1.9%        | 2.1%        | 1.9%        | 0.93              | 1.00                  |

Exhibit A-1c Composite Termination Attained Age Mortality Adjustment For Policy Durations 7+ All Products

| Attained  |            |
|-----------|------------|
| Attailled | Adjustment |
| <55       | 1.00       |
| 55        | 1.00       |
| 56        | 1.00       |
| 57        | 1.00       |
| 58        | 1.00       |
| 59        | 1.00       |
| 60        | 1.00       |
| 61        | 1.00       |
| 62        | 1.00       |
| 63        | 1.00       |
| 64        | 1.00       |
| 65        | 1.00       |
| 66        | 1.00       |
| 67        | 1.00       |
| 68        | 1.00       |
| 69        | 1.00       |
| 70        | 1.00       |
| 71        | 1.01       |
| 72        | 1.01       |
| 73        | 1.01       |
| 74        | 1.01       |

| Attained |            |
|----------|------------|
| Age      | Adjustment |
| 75       | 1.02       |
| 76       | 1.02       |
| 77       | 1.03       |
| 78       | 1.03       |
| 79       | 1.03       |
| 80       | 1.03       |
| 81       | 1.04       |
| 82       | 1.04       |
| 83       | 1.04       |
| 84       | 1.04       |
| 85       | 1.05       |
| 86       | 1.05       |
| 87       | 1.06       |
| 88       | 1.06       |
| 89       | 1.06       |
| 90       | 1.06       |
| 91       | 1.07       |
| 92       | 1.07       |
| 93       | 1.07       |
| 94       | 1.07       |
| 95+      | 1.07       |

Exhibit A-2
Actual-to-Modeled Voluntary Lapse Experience 2008-2017
Lifetime-Pay for Policy Durations 10+
All Products

|                        | Policy Year | Ac     | tual        | Lapse Pro  | obability | Actual-to-Modeled | Lapse Probability |
|------------------------|-------------|--------|-------------|------------|-----------|-------------------|-------------------|
| Policy or Policyholder | Exposure    | Lapses | Probability | Unadjusted | Modeled   | Unadjusted        | Modeled           |
| Characteristic         | [A]         | [B]    | [C]         | [D]        | [E]       | [F] = [C] / [D]   | [G] = [C] / [E]   |
| Marital Status         |             |        |             |            |           |                   |                   |
|                        | 222.242     | 4 757  | 0.00/       | 1.00/      | 0.00/     | 1 0.70            |                   |
| Married                | 226,840     | 1,757  | 0.8%        | 1.0%       | 0.8%      | 0.76              | 0.98              |
| Single                 | 252,968     | 2,338  | 0.9%        | 0.9%       | 0.9%      | 1.02              | 1.01              |
| Benefit Period         |             |        |             |            |           |                   |                   |
| Non-Lifetime           | 343,952     | 3,341  | 1.0%        | 1.0%       | 1.0%      | 0.95              | 1.01              |
| Lifetime               | 135,856     | 754    | 0.6%        | 0.8%       | 0.6%      | 0.68              | 0.95              |
| Inflation              |             |        | _           |            |           |                   |                   |
| None                   | 177,263     | 2,052  | 1.2%        | 1.0%       | 1.1%      | 1.13              | 1.01              |
| Auto                   | 302,544     | 2,043  | 0.7%        | 0.9%       | 0.7%      | 0.73              | 0.98              |
| Cohort <sup>[1]</sup>  |             |        |             |            |           |                   |                   |
| Prior to Series 11     | 19,434      | 146    | 0.7%        | 1.0%       | 0.8%      | 0.75              | 0.90              |
| Series 11 Individual   | 54,987      | 326    | 0.6%        | 0.6%       | 0.6%      | 0.99              | 1.00              |
| Series 11 Group        | 19,641      | 216    | 1.1%        | 1.3%       | 1.1%      | 0.84              | 0.98              |
| Attained Age           | •           |        | ·           |            |           | •                 |                   |
| <65                    | 113,757     | 1,078  | 0.9%        | 0.9%       | 0.8%      | 1.01              | 1.14              |
| 65-69                  | 67,892      | 376    | 0.6%        | 0.9%       | 0.6%      | 0.59              | 0.91              |
| 70-74                  | 79,255      | 523    | 0.7%        | 1.0%       | 0.7%      | 0.68              | 0.92              |
| 75-79                  | 88,328      | 649    | 0.7%        | 1.0%       | 0.8%      | 0.74              | 0.93              |
| 80-84                  | 74,228      | 677    | 0.9%        | 1.0%       | 0.9%      | 0.94              | 0.96              |
| 85+                    | 56,348      | 792    | 1.4%        | 1.0%       | 1.4%      | 1.45              | 1.01              |
| Total                  | 479,808     | 4,095  | 0.8%        | 1.0%       | 0.9%      | 0.89              | 1.00              |

<sup>[1]</sup> Series characteristic captures the experience of Prior to Series 11, Series 11 Individual, and Series 11 Group policies only, while other characteristics capture the pooled experience of products of MedAmerica, its affinity partners, and MedAmerica's acquired blocks of business.

Exhibit A-3

Actual-to-Expected Composite<sup>[1]</sup> Termination Experience 2008-2017

Lifetime-Pay for Policy Durations 10+

All Products

|                        | Policy Year | Act          | ual         | Expected Termination       | Actual-to-Expected                     |
|------------------------|-------------|--------------|-------------|----------------------------|--|
| Policy or Policyholder | Exposure    | Terminations | Probability | Probability <sup>[1]</sup> | Termination Probability <sup>[1]</sup> |
| Characteristic         | [A]         | [B]          | [C]         | [D]                        | [E] = [C] / [D]                        |
|                        |             |              |             |                            |  |
| Marital Status         |             |              |             |                            |  |
| Married                | 226,840     | 6,737        | 2.9%        | 2.9%                       | 1.00                                   |
| Single                 | 252,968     | 10,430       | 4.0%        | 3.9%                       | 1.03                                   |
| Gender                 |             |              |             |                            |  |
| Female                 | 291,631     | 9,451        | 3.2%        | 3.2%                       | 1.01                                   |
| Male                   | 188,176     | 7,716        | 4.0%        | 3.9%                       | 1.03                                   |
| Era                    |             |              |             |                            |  |
| New                    | 291,819     | 7,978        | 2.7%        | 2.6%                       | 1.04                                   |
| Old                    | 187,989     | 9,189        | 4.8%        | 4.8%                       | 1.00                                   |
| Benefit Period         |             | -            |             |                            |  |
| Non-Lifetime           | 343,952     | 13,461       | 3.8%        | 3.8%                       | 1.02                                   |
| Lifetime               | 135,856     | 3,706        | 2.7%        | 2.6%                       | 1.03                                   |
| Inflation              |             | -            |             | •                          |  |
| None                   | 177,263     | 9,333        | 5.1%        | 4.9%                       | 1.05                                   |
| Auto                   | 302,544     | 7,834        | 2.6%        | 2.6%                       | 0.99                                   |
| Cohort <sup>[2]</sup>  |             |              |             | •                          |  |
| Prior to Series 11     | 19,434      | 1,066        | 5.3%        | 5.1%                       | 1.04                                   |
| Series 11 Individual   | 54,987      | 1,715        | 3.1%        | 3.0%                       | 1.03                                   |
| Series 11 Group        | 19,641      | 392          | 2.0%        | 1.8%                       | 1.09                                   |
| Policy Duration        | ·           | •            |             | •                          |  |
| 10-14                  | 256,833     | 6,828        | 2.6%        | 2.5%                       | 1.07                                   |
| 15-19                  | 145,062     | 5,757        | 3.9%        | 3.9%                       | 0.99                                   |
| 20-24                  | 62,763      | 3,496        | 5.4%        | 5.4%                       | 1.00                                   |
| 25+                    | 15,150      | 1,086        | 6.9%        | 7.1%                       | 0.98                                   |
| Attained Age           | •           | ,            |             | •                          |  |
| <65                    | 113,757     | 1,466        | 1.3%        | 1.2%                       | 1.11                                   |
| 65-69                  | 67,892      | 883          | 1.3%        | 1.3%                       | 0.99                                   |
| 70-74                  | 79,255      | 1,488        | 1.9%        | 1.9%                       | 1.00                                   |
| 75-79                  | 88,328      | 2,733        | 3.0%        | 3.0%                       | 1.01                                   |
| 80-84                  | 74,228      | 3,966        | 5.2%        | 5.1%                       | 1.02                                   |
| 85+                    | 56,348      | 6,631        | 11.1%       | 10.9%                      | 1.01                                   |
| Total                  | 479,808     | 17,167       | 3.5%        | 3.4%                       | 1.02                                   |

<sup>[1]</sup> Combination of mortality and voluntary lapse

<sup>[2]</sup> Series characteristic captures the experience of Prior to Series 11, Series 11 Individual, and Series 11 Group policies only, while other characteristics capture the pooled experience of products of MedAmerica, its affinity partners, and MedAmerica's acquired blocks of business.

Exhibit A-4
Actual-to-Expected Benefit Expiry Experience 2008-2017
Policy Durations 7+
All Products

| Policy or                      | Policy Year                 | Acti                  | ual                | Benefit Expiry         | Probability                 | Actual-to-Expecte                         | ed Benefit Expiry                       |
|--------------------------------|-----------------------------|-----------------------|--------------------|------------------------|-----------------------------|---|---|
| Policyholder<br>Characteristic | Exposure <sup>[1]</sup> [A] | Benefit Expiry<br>[B] | Probability<br>[C] | 2017 Guidelines<br>[D] | Expected <sup>[2]</sup> [E] | <b>2017 Guidelines</b><br>[F] = [C] / [D] | Expected <sup>[2]</sup> [G] = [C] / [E] |
| Gender                         |                             |                       |                    |                        |                             |   |   |
| Female                         | 226,513                     | 1,317                 | 0.6%               | 0.5%                   | 0.6%                        | 1.07                                      | 1.02                                    |
| Male                           | 162,541                     | 445                   | 0.3%               | 0.3%                   | 0.3%                        | 0.99                                      | 0.97                                    |
| Benefit Period                 |                             | •                     |                    | •                      |                             | •   |   |
| 1 Year                         | 21,879                      | 139                   | 0.6%               | 0.7%                   | 0.7%                        | 0.91                                      | 0.88                                    |
| 2 Year                         | 59,932                      | 533                   | 0.9%               | 0.7%                   | 0.8%                        | 1.20                                      | 1.13                                    |
| 3 Year                         | 181,848                     | 722                   | 0.4%               | 0.4%                   | 0.4%                        | 0.96                                      | 0.93                                    |
| 4 Year                         | 52,938                      | 188                   | 0.4%               | 0.3%                   | 0.4%                        | 1.05                                      | 0.99                                    |
| 5 Year                         | 66,951                      | 175                   | 0.3%               | 0.2%                   | 0.2%                        | 1.19                                      | 1.12                                    |
| 6 Year                         | 4,677                       | 5                     | 0.1%               | 0.0%                   | 0.0%                        | 2.92                                      | 2.80                                    |
| 10 Year                        | 830                         | 0                     | 0.0%               | 0.0%                   | 0.0%                        | 0.00                                      | 0.00                                    |
| Attained Age                   |                             | •                     |                    | •                      |                             | •   |   |
| <75                            | 186,976                     | 86                    | 0.0%               | 0.1%                   | 0.1%                        | 0.64                                      | 0.83                                    |
| 75-79                          | 85,088                      | 145                   | 0.2%               | 0.2%                   | 0.2%                        | 0.73                                      | 0.90                                    |
| 80-84                          | 66,442                      | 376                   | 0.6%               | 0.6%                   | 0.6%                        | 1.01                                      | 1.01                                    |
| 85-89                          | 36,785                      | 544                   | 1.5%               | 1.3%                   | 1.5%                        | 1.10                                      | 0.99                                    |
| 90-94                          | 11,698                      | 466                   | 3.9%               | 3.0%                   | 3.7%                        | 1.30                                      | 1.06                                    |
| 95+                            | 2,066                       | 145                   | 6.8%               | 5.6%                   | 6.3%                        | 1.22                                      | 1.07                                    |
| Total                          | 389,054                     | 1,762                 | 0.5%               | 0.4%                   | 0.5%                        | 1.05                                      | 1.00                                    |

<sup>[1]</sup> Experience excludes lifetime benefit periods and ages less than 65

<sup>[2]</sup> Expected = Rates in Section 6 of the actuarial memorandum

#### Exhibit A-5a MedAmerica and Affinity Partners Morbidity Adjustment Factors Series 11 and Prior Policy Forms

|          | Product-Sp | ecific Adjustn | nent Factors |
|----------|------------|----------------|--------------|
|          | Prior to   | Series 11      | Series 11    |
| Duration | Series 11  | Individual     | Group        |
| 1        | 1.01       | 1.00           | 0.89         |
| 2        | 1.03       | 0.98           | 0.83         |
| 3        | 1.04       | 0.96           | 0.78         |
| 4        | 1.09       | 0.99           | 0.74         |
| 5        | 1.17       | 0.97           | 0.71         |
| 6        | 1.19       | 0.97           | 0.76         |
| 7        | 1.18       | 1.00           | 0.82         |
| 8        | 1.16       | 1.02           | 0.91         |
| 9        | 1.09       | 0.97           | 1.01         |
| 10       | 1.01       | 0.98           | 1.13         |
| 11       | 0.96       | 1.01           | 1.23         |
| 12       | 0.97       | 1.04           | 1.24         |
| 13       | 1.00       | 1.06           | 1.17         |
| 14       | 1.05       | 1.09           | 1.09         |
| 15       | 1.11       | 1.14           | 1.00         |
| 16       | 1.12       | 1.11           | 0.96         |
| 17       | 1.11       | 1.07           | 0.95         |
| 18       | 1.08       | 1.05           | 0.96         |
| 19       | 1.04       | 1.03           | 0.98         |
| 20+      | 1.02       | 1.02           | 0.99         |

|          | Product-Sp | ecific Adjustn | nent Factors | Г    |
|----------|------------|----------------|--------------|------|
| Attained | Prior to   | Series 11      | Series 11    | 1 1  |
| Age      | Series 11  | Individual     | Group        | 1 I  |
| <55      | 1.05       | 1.00           | 1.02         |      |
| 55       | 1.05       | 1.00           | 1.02         |      |
| 56       | 1.05       | 1.00           | 1.02         | 1 I  |
| 57       | 1.04       | 1.00           | 1.01         | 1 I  |
| 58       | 1.02       | 0.97           | 0.99         | 1 I  |
| 59       | 1.09       | 0.94           | 0.99         | 1 I  |
| 60       | 1.09       | 0.93           | 0.97         |      |
| 61       | 1.15       | 0.93           | 0.98         | 1 I  |
| 62       | 1.23       | 0.89           | 0.99         | 1 I  |
| 63       | 1.36       | 0.86           | 1.00         | 1 I  |
| 64       | 1.28       | 0.87           | 0.99         | i    |
| 65       | 1.23       | 0.90           | 0.97         |      |
| 66       | 1.20       | 0.90           | 0.95         | 1 I  |
| 67       | 1.18       | 0.95           | 0.93         | 1 I  |
| 68       | 1.08       | 1.07           | 0.95         | 1 I  |
| 69       | 1.08       | 1.11           | 0.93         | i    |
| 70       | 1.06       | 1.09           | 0.93         |      |
| 71       | 1.00       | 1.10           | 0.94         | 1 I  |
| 72       | 0.94       | 1.13           | 0.95         | 1 I  |
| 73       | 0.94       | 1.09           | 0.95         | ıl   |
| 74       | 0.94       | 1.10           | 0.98         | i    |
| 75       | 0.91       | 1.13           | 0.99         | ·  - |
| 76       | 0.90       | 1.13           | 1.00         | il   |
| 77       | 0.92       | 1.05           | 0.99         | 1 I  |
| 78       | 0.90       | 1.05           | 0.98         | ıl   |
| 79       | 0.89       | 1.04           | 0.98         | ıl   |
| 80       | 0.93       | 1.03           | 1.00         |      |
| 81       | 0.98       | 1.03           | 1.01         | ıl   |
| 82       | 0.96       | 1.09           | 1.04         | ıl   |
| 83       | 0.99       | 1.10           | 1.06         | ıl   |
| 84       | 0.99       | 1.09           | 1.06         | ıl   |
| 85       | 0.99       | 1.09           | 1.04         |      |
| 86       | 0.96       | 1.09           | 1.03         | ıl   |
| 87       | 0.98       | 1.06           | 1.01         | i    |
| 88       | 0.97       | 1.05           | 1.00         | i    |
| 89       | 0.98       | 1.07           | 0.99         | ıl   |
| 90       | 0.98       | 1.06           | 0.99         |      |
| 91       | 0.99       | 1.06           | 0.99         | ıl   |
| 92       | 1.00       | 1.05           | 0.99         | ıl   |
| 93       | 1.01       | 1.02           | 0.99         | 1 I  |
| 94       | 1.01       | 0.99           | 0.99         |      |
| 95       | 1.02       | 0.98           | 1.00         |      |
| 96       | 1.01       | 0.97           | 1.00         |      |
| 97       | 1.00       | 0.97           | 1.00         | i    |
| 98       | 1.00       | 0.98           | 1.00         |      |
| 99       | 1.00       | 0.99           | 1.00         |      |
| 100      | 1.00       | 0.99           | 1.00         |      |
| 101+     | 1.00       | 1.00           | 1.00         |      |
| .011     | 1.00       | 1.00           | 50           |      |

| Attained | Payment Ty<br>Series 11 and Prio | pe Adjustment Factor | rs<br>Series 11 |
|----------|----------------------------------|----------------------|-----------------|
| Age      | Non-Tax-Qualified (NTQ)          | Tax-Qualified (TQ)   | Group           |
| <55      | 0.99                             | 0.94                 | 1.07            |
| 55       | 0.99                             | 0.94                 | 1.07            |
| 56       | 0.99                             | 0.94                 | 1.07            |
| 57       | 0.94                             | 0.92                 | 1.12            |
| 58       | 0.88                             | 0.92                 | 1.11            |
| 59       | 0.90                             | 0.88                 | 1.11            |
| 60       | 0.91                             | 0.88                 | 1.04            |
| 61       | 0.91                             | 0.90                 | 1.04            |
| 62       | 0.96                             | 0.87                 | 0.92            |
| 63       | 1.05                             | 0.81                 | 0.92            |
| 64       | 0.96                             | 0.81                 | 0.90            |
| 65       | 0.89                             | 0.85                 | 0.90            |
|          |                                  |                      |                 |
| 66       | 0.89                             | 0.82                 | 0.93            |
| 67       | 0.90                             | 0.87<br>0.95         | 1.01<br>1.07    |
| 68       | 0.83                             |                      |                 |
| 69<br>70 | 0.88                             | 1.01                 | 1.04            |
|          | 0.94                             | 0.99                 | 1.01            |
| 71       | 0.98                             | 1.03                 | 0.99            |
| 72       | 1.00                             | 1.05                 | 0.96            |
| 73       | 1.06                             | 1.05                 | 0.96            |
| 74       | 1.11                             | 1.04                 | 0.97            |
| 75       | 1.14                             | 1.04                 | 0.93            |
| 76       | 1.10                             | 1.08                 | 0.93            |
| 77       | 1.08                             | 1.07                 | 0.88            |
| 78       | 1.07                             | 1.09                 | 0.82            |
| 79       | 1.06                             | 1.12                 | 0.77            |
| 80       | 1.03                             | 1.19                 | 0.79            |
| 81       | 1.06                             | 1.15                 | 0.78            |
| 82       | 1.08                             | 1.14                 | 0.82            |
| 83       | 1.14                             | 1.14                 | 0.87            |
| 84       | 1.08                             | 1.10                 | 0.94            |
| 85       | 1.10                             | 1.07                 | 0.95            |
| 86       | 1.09                             | 1.09                 | 0.98            |
| 87       | 1.10                             | 1.17                 | 0.98            |
| 88       | 1.06                             | 1.18                 | 0.97            |
| 89       | 1.09                             | 1.22                 | 0.97            |
| 90       | 1.06                             | 1.24                 | 0.96            |
| 91       | 1.04                             | 1.24                 | 0.97            |
| 92       | 1.02                             | 1.15                 | 0.98            |
| 93       | 1.02                             | 1.11                 | 0.99            |
| 94       | 1.01                             | 1.06                 | 0.99            |
| 95       | 1.03                             | 1.04                 | 0.99            |
| 96       | 1.02                             | 1.01                 | 0.98            |
| 97       | 1.03                             | 1.01                 | 0.98            |
| 98       | 1.00                             | 1.01                 | 0.97            |
| 99       | 1.00                             | 1.01                 | 0.97            |
| 100      | 1.00                             | 1.02                 | 0.98            |
| 101+     | 1.00                             | 1.02                 | 0.98            |

| Non-MANY Adjustment Factor |                  |              |  |
|----------------------------|------------------|--------------|--|
| Attained                   | Series 11 and    | Series 11    |  |
| Age                        | Prior Individual | Group        |  |
| <55                        | 1.07             | 1.01         |  |
| 55                         | 1.07             | 1.01         |  |
| 56                         | 1.07             | 1.01         |  |
| 57                         | 1.06             | 1.00         |  |
| 58                         | 0.99             | 0.98         |  |
| 59                         | 0.95             | 0.99         |  |
| 60                         | 0.89             | 0.99         |  |
| 61                         | 0.89             | 1.01         |  |
| 62                         | 0.88             | 1.03         |  |
| 63                         | 0.94             | 1.03         |  |
| 64                         | 1.00             | 1.01         |  |
| 65                         | 1.00             | 1.00         |  |
| 66                         | 1.09             | 0.98         |  |
| 67                         | 1.17             | 0.97         |  |
| 68                         | 1.25             | 1.00         |  |
| 69                         | 1.26             | 1.00         |  |
| 70                         | 1.28             | 1.00         |  |
| 71                         | 1.13             | 1.01         |  |
| 72                         | 1.09             | 1.02         |  |
| 73                         | 1.03             | 1.01         |  |
| 74                         | 1.03             | 1.02         |  |
| 75                         | 0.99             | 1.03         |  |
| 76                         | 1.00             | 1.03         |  |
| 77                         | 0.97             | 1.02         |  |
| 78                         | 0.97             | 1.00         |  |
| 79                         | 0.97             | 1.00         |  |
| 80                         | 1.02             | 1.01         |  |
| 81                         | 1.08             | 1.01         |  |
| 82                         | 1.12             | 1.03         |  |
| 83                         | 1.13             | 1.05         |  |
| 84                         | 1.11             | 1.04         |  |
| 85                         | 1.08             | 1.03         |  |
| 86                         | 1.05             | 1.02         |  |
| 87                         | 1.03             | 1.01<br>1.00 |  |
| 88<br>89                   | 1.02<br>1.05     | 0.99         |  |
| 90                         | 1.05             | 0.99         |  |
| 90<br>91                   | 1.05             | 0.99         |  |
| 91                         | 1.05             | 0.99         |  |
| 92                         | 1.03             | 0.99         |  |
| 93<br>94                   | 1.04             | 0.99         |  |
| 95                         | 1.00             | 1.00         |  |
| 95<br>96                   | 0.98             | 1.00         |  |
| 96                         | 0.96             | 1.00         |  |
| 98                         | 0.97             | 1.00         |  |
| 99                         | 0.98             | 1.00         |  |
| 100                        | 0.99             | 1.00         |  |
| 101+                       | 1.00             | 1.00         |  |

| Coverage<br>Type  | Adjustment<br>Factor |
|-------------------|----------------------|
| Comprehensive     | 0.90                 |
| Nursing Home Only | 1.03                 |
| Home Care Only    | 1 10                 |

Exhibit A-5b

MedAmerica and Affinity Partners

Actual-to-Expected Morbidity Experience through June 30, 2016 with Claim Runout

Series 11 and Prior Policy Forms

| Policy or                     |                        | Actual Incur      | red Claims  | Incurred        | Claims      | Actual-to-Expected | Incurred Claims |
|-------------------------------|------------------------|-------------------|-------------|-----------------|-------------|--------------------|-----------------|
| Policyholder                  | Exposure               | Count             | Dollars     | 2014 Guidelines | Expected    | 2014 Guidelines    | Expected        |
| Characteristic                | [A]                    | [B]               | [C]         | [D]             | [E]         | [F] = [C] / [D]    | [G] = [C] / [E] |
| Group / Individual            | •                      | •                 | •           | •               | -           | •                  |                 |
| Individual                    | 193,242                | 2,249             | 178,975,634 | 156,954,375     | 176,559,724 | 1.14               | 1.01            |
| Group                         | 70,814                 | 144               | 12,926,716  | 15,433,614      | 12,861,010  | 0.84               | 1.01            |
| Payment-Type / Tax Status (TO | Q = Tax-Qualified, NTQ | = Non-Tax-Qualifi | ed)         |                 | -           |                    |                 |
| Cash / TQ                     | -                      | -                 | -           | -               | -           | -                  | -               |
| Reimbursement / NTQ           | 39,927                 | 917               | 65,409,856  | 59,812,646      | 63,796,383  | 1.09               | 1.03            |
| Reimbursement / TQ            | 224,130                | 1,476             | 126,492,493 | 112,575,343     | 125,624,350 | 1.12               | 1.01            |
| Coverage Type                 |                        |                   |             |                 |             |                    |                 |
| Comprehensive                 | 227,746                | 1,884             | 150,906,765 | 139,676,235     | 147,922,870 | 1.08               | 1.02            |
| Nursing Home Only             | 32,685                 | 460               | 38,605,492  | 30,464,462      | 38,400,192  | 1.27               | 1.01            |
| Home Care Only                | 3,625                  | 49                | 2,390,092   | 2,247,291       | 3,097,671   | 1.06               | 0.77            |
| Attained Age                  |                        |                   |             |                 |             |                    |                 |
| < 60                          | 83,038                 | 42                | 4,870,844   | 5,365,561       | 4,676,717   | 0.91               | 1.04            |
| 60 - 69                       | 79,848                 | 159               | 19,010,143  | 18,287,944      | 16,392,665  | 1.04               | 1.16            |
| 70 - 79                       | 70,206                 | 692               | 61,059,411  | 58,372,138      | 61,346,118  | 1.05               | 1.00            |
| 80 - 89                       | 28,701                 | 1,254             | 93,780,632  | 78,168,887      | 93,335,869  | 1.20               | 1.00            |
| 90 +                          | 2,264                  | 246               | 13,181,321  | 12,193,459      | 13,669,365  | 1.08               | 0.96            |
| Policy Duration               |                        |                   |             |                 |             |                    |                 |
| < 7                           | 100,261                | 233               | 18,673,085  | 21,414,416      | 20,738,173  | 0.87               | 0.90            |
| 7 - 10                        | 81,762                 | 596               | 50,705,841  | 45,309,295      | 48,390,377  | 1.12               | 1.05            |
| 11 - 15                       | 68,137                 | 1,050             | 84,288,017  | 73,690,605      | 83,520,887  | 1.14               | 1.01            |
| 16 - 20                       | 13,264                 | 475               | 36,640,193  | 30,113,053      | 34,827,994  | 1.22               | 1.05            |
| 21 +                          | 632                    | 39                | 1,595,214   | 1,860,621       | 1,943,302   | 0.86               | 0.82            |
| Product                       |                        |                   |             | -               | -           |                    |                 |
| Series 11 Group               | 70,814                 | 144               | 12,926,716  | 15,433,614      | 12,861,010  | 0.84               | 1.01            |
| Series 11 Individual          | 153,316                | 1,332             | 113,565,777 | 97,141,729      | 112,763,341 | 1.17               | 1.01            |
| Prior to Series 11            | 39,927                 | 917               | 65,409,856  | 59,812,646      | 63,796,383  | 1.09               | 1.03            |
| Total                         | 264,057                | 2,393             | 191,902,350 | 172,387,989     | 189,420,734 | 1.11               | 1.01            |

Exhibit A-5c
MedAmerica, Affinity Partners, and Acquired Business
Actual-to-Expected Morbidity Experience through June 30, 2016 with Claim Runout
All Products

| Policy or                         |                         | Actual Incur | red Claims  | Incurred        | Claims      | Actual-to-Expected | Incurred Claims |
|-----------------------------------|-------------------------|--------------|-------------|-----------------|-------------|--------------------|-----------------|
| Policyholder                      | Exposure                | Count        | Dollars     | 2014 Guidelines | Expected    | 2014 Guidelines    | Expected        |
| Characteristic                    | [A]                     | [B]          | [C]         | [D]             | [E]         | [F] = [C] / [D]    | [G] = [C] / [E] |
| Group / Individual                |                         |              |             |                 |             |                    |                 |
| Individual                        | 912,916                 | 9,926        | 800,367,697 | 733,049,215     | 794,361,129 | 1.09               | 1.01            |
| Group                             | 346,699                 | 1,374        | 130,339,904 | 156,675,596     | 133,888,114 | 0.83               | 0.97            |
| Payment-Type / Tax Status (TQ = ' | Tax-Qualified, NTQ = No |              |             |                 |             |                    |                 |
| Cash / TQ                         | 343,731                 | 558          | 62,039,510  | 57,638,053      | 59,620,193  | 1.08               | 1.04            |
| Reimbursement / NTQ               | 300,053                 | 6,653        | 510,365,552 | 479,343,318     | 507,745,230 | 1.06               | 1.01            |
| Reimbursement / TQ                | 615,831                 | 4,089        | 358,302,538 | 352,743,439     | 360,883,820 | 1.02               | 0.99            |
| Coverage Type                     |                         |              |             |                 |             |                    |                 |
| Comprehensive                     | 1,136,716               | 8,789        | 756,597,258 | 749,849,298     | 758,592,612 | 1.01               | 1.00            |
| Nursing Home Only                 | 106,185                 | 2,145        | 154,205,174 | 127,829,789     | 153,061,713 | 1.21               | 1.01            |
| Home Care Only                    | 16,715                  | 366          | 19,905,169  | 12,045,724      | 16,594,918  | 1.65               | 1.20            |
| Attained Age                      |                         |              |             |                 |             |                    |                 |
| < 60                              | 453,624                 | 244          | 33,805,437  | 30,149,268      | 30,328,735  | 1.12               | 1.11            |
| 60 - 69                           | 360,462                 | 666          | 78,589,161  | 88,054,403      | 75,788,341  | 0.89               | 1.04            |
| 70 - 79                           | 291,092                 | 2,748        | 262,147,876 | 268,144,812     | 267,494,038 | 0.98               | 0.98            |
| 80 - 89                           | 138,826                 | 5,979        | 465,876,836 | 417,634,186     | 464,847,833 | 1.12               | 1.00            |
| 90 +                              | 15,611                  | 1,663        | 90,288,290  | 85,742,142      | 89,790,297  | 1.05               | 1.01            |
| Policy Duration                   |                         |              | -           |                 |             |                    |                 |
| < 7                               | 497,039                 | 823          | 75,787,355  | 82,648,988      | 79,201,077  | 0.92               | 0.96            |
| 7 - 10                            | 307,411                 | 1,867        | 174,015,180 | 164,578,241     | 170,058,801 | 1.06               | 1.02            |
| 11 - 15                           | 278,526                 | 3,765        | 317,411,016 | 297,015,693     | 316,181,994 | 1.07               | 1.00            |
| 16 - 20                           | 129,643                 | 3,188        | 245,115,546 | 230,142,856     | 242,291,028 | 1.07               | 1.01            |
| 21 +                              | 46,996                  | 1,657        | 118,378,503 | 115,339,033     | 120,516,343 | 1.03               | 0.98            |
| Total                             | 1,259,615               | 11,300       | 930,707,601 | 889,724,811     | 928,249,243 | 1.05               | 1.00            |

## Appendix B Justification for and Development of the Requested Rate Increase

This appendix provides details on the development of the current rate increase requests as well as demonstrations of how the requested rate increases are not recouping past losses.

### **Actuarial Equivalent Rate Increase Development**

This rate increase request is a follow-up to two prior nationwide requests for the Prior to Series 11, Series 11 Individual, and Series 11 Group policy forms. Table B-1 provides the originally requested rate increases by benefit period. In jurisdictions that did not allow full implementation of the prior requested increases, the company is requesting a follow-up increase to achieve an actuarially equivalent lifetime loss ratio to the prior requests.

Table B-1
Originally Requested Nationwide Rate Increases
Series 11 and Prior Policy Forms

| Benefit<br>Period  | 2009<br>Request | 2017<br>Request | Cumulative<br>Request |
|--------------------|-----------------|-----------------|-----------------------|
| Non-Lifetime       | 39.0%           | 69.1%           | 135%                  |
| Lifetime           | 39.0            | 187.1           | 299                   |
| AII <sup>[1]</sup> | 39.0            | 96.8            | 174                   |

[1] Average as of December 31, 2018 and excludes policies assumed to be paid up prior to implementation of the requested rate increase.

Exhibit B-1 provides the lifetime loss ratio that would have been achieved if all jurisdictions had implemented the originally requested rate increases. This exhibit is similar to Exhibit I-b except that it reflects premiums that have been restated to assume implementation of the originally requested rate increases shown in Table B-1 and is split by benefit period. Table B-2 summarizes the lifetime loss ratios from Exhibit B-1, which are the targets for determining actuarial equivalence.

Table B-2
Target Lifetime Loss Ratio for Actuarial Equivalence
Series 11 and Prior Policy Forms

| Benefit<br>Period | Lifetime<br>Loss Ratio |
|-------------------|------------------------|
| Non-Lifetime      | 88%                    |
| Lifetime          | 130                    |

The average nationwide requested rate increases shown in Section 2 were developed to produce a lifetime loss ratio that is equivalent to that in Table B-2. This equivalence is demonstrated by comparing the after increase lifetime loss ratios from Section 15 to those in Table B-2.

The requested rate increases in this jurisdiction, shown in the enclosed cover letter, were developed to produce lifetime loss ratios that are equivalent to those in Table B-2. This equivalence is demonstrated by comparing the lifetime loss ratios from Exhibit B-2 to those in Table B-2. Exhibit B-2 provides similar information as Exhibit B-1 except that premiums have been restated to reflect the actual rate increases implemented in this jurisdiction and the requested rate increase shown in the cover letter.

While emerging experience supports a larger rate increase, the company is limiting the increase to be an actuarially equivalent follow-up to the prior requests in order to improve equity across jurisdictions. The company plans to continue to monitor experience and request additional rate increases in the future, to the extent justified. However, if it is the Department's position to only allow future rate increases if experience deteriorates from the current most-likely projections used in this filing, the company respectfully requests that the Department notify them and allow the company to revise the current rate increase request.

## <u>Demonstrations the Requested Increase does not Recoup Past Losses</u>

A number of methods exist to quantify or demonstrate whether an increase may be recouping past losses and offer the following for consideration.

Appendix B 1

## Appendix B Justification for and Development of the Requested Rate Increase

### Capped Historical Incurred Claims

The 2014 Long-Term Care Model Regulation (Model Regulation) contemplates recouping past losses in Section 20.1.C for newly issued policies. Specifically, recouping past losses is limited by not allowing past actual claims in excess of expected claims by calendar year in the minimum loss ratio test (Section 20.1.C(2)).

While Section 20.1.C is not applicable to these policies, to demonstrate that the nationwide rate increase request is not recouping past losses we capped actual historical claims by those expected in pricing by calendar year in demonstrating compliance with the applicable minimum loss ratio requirements for these policies. Expected claims are calculated as earned premium multiplied by expected loss ratio for each calendar year.

Tables B-3 and B-4 reflect the capped historical incurred claims and demonstrate compliance with the applicable minimum loss ratio requirements for the pre- and post-rate stability regulation (Model Regulation Sections 19 and 20), respectively. Tables B-3 and B-4 provide similar information as that in Section 15 of the actuarial memorandum, except for capping historical incurred claims at that expected.

Table B-3
Nationwide Lifetime Loss Ratios with Capped Historical Incurred Claims at the Maximum Valuation Interest Rate by Policy Form Cohort and Benefit Period

| by roney ronn concreting benefit chea |                   |                    |                   |  |  |  |  |  |  |
|---------------------------------------|-------------------|--------------------|-------------------|--|--|--|--|--|--|
| Policy Form<br>Cohort                 | Benefit<br>Period | Before<br>Increase | After<br>Increase |  |  |  |  |  |  |
| Prior to Series 11                    | All               | 103%               | 98%               |  |  |  |  |  |  |
| Series 11 Individual                  | All               | 117                | 100               |  |  |  |  |  |  |
| Series 11 Group                       | All               | 106                | 91                |  |  |  |  |  |  |
| All                                   | Non-Lifetime      | 95                 | 86                |  |  |  |  |  |  |
| All                                   | Lifetime          | 147                | 120               |  |  |  |  |  |  |
| All                                   | All               | 110                | 96                |  |  |  |  |  |  |

Table B-4
58%/85% Test with Capped Historical Incurred Claims
by Policy Form Cohort and Benefit Period

| by reney renn concreting benefit renea |                   |                       |                          |                       |  |  |  |  |  |
|--|-------------------|-----------------------|--------------------------|-----------------------|--|--|--|--|--|
| Policy Form<br>Cohort                  | Benefit<br>Period | Item 5 <sup>[1]</sup> | Item 7 <sup>[2][3]</sup> | Result <sup>[4]</sup> |  |  |  |  |  |
| Prior to Series 11                     | All               | \$149.1               | \$256.8                  | Pass                  |  |  |  |  |  |
| Series 11 Individual                   | All               | 339.4                 | 581.9                    | Pass                  |  |  |  |  |  |
| Series 11 Group                        | All               | 145.5                 | 225.0                    | Pass                  |  |  |  |  |  |
| All                                    | Non-Lifetime      | 451.5                 | 674.5                    | Pass                  |  |  |  |  |  |
| All                                    | Lifetime          | 182.5                 | 373.5                    | Pass                  |  |  |  |  |  |
| All                                    | All               | 634.0                 | 1,054.2                  | Pass                  |  |  |  |  |  |

<sup>[1]</sup> Item 5 is the Lifetime Earned Premium (in millions) Times Prescribed Factor.

## HATF Discussion and Lifetime Premium Equivalence

One approach that was considered by the NAIC Health Actuarial Task Force (HATF) during discussions for the development of the Model Regulation was that past losses should be defined as past premium inadequacies given current, updated information. A company would demonstrate this approach by restating premiums to the proposed rate level from inception and demonstrating compliance with minimum loss ratio tests.

This approach was determined by HATF to not be a realistic method to define past losses because in reality there is no opportunity for the company to have perfect knowledge from policy inception and this approach greatly expands

Appendix B 2

<sup>[2]</sup> Item 7 is Lifetime Incurred Claims with Rate Increase (in millions). The historical incurred claims by calendar year reflect the lesser of actual and expected pricing claims. The future projected incurred claims were increased by 15% to reflect assumptions with moderately adverse experience.

<sup>[3]</sup> The capped historical incurred claims are calculated for each indicated cohort. The difference results in the sum of the cohort and/or benefit period not tying to the totals.

<sup>[4]</sup> Test of whether Item 7 is not less than Item 5.

## Appendix B Justification for and Development of the Requested Rate Increase

the risk on the product. Ultimately, HATF settled on the approach that past losses should be defined as any excess of actual past claims over expected claims, which led to the approach outlined in Section 20.1.C of the Model Regulation and described above. For additional background on HATF's review of methods of defining past losses please see the article 'Recouping Past LTC Losses' in the April 2017 issue of the Society of Actuaries Long-Term Care Section newsletter, Long-Term Care News.

While it is not appropriate to use this restrictive method of restating premiums to the proposed rate level from inception to determine the rate increase, we can use it to confirm that current policyholders are not paying more over their lifetime than what they would have if the company had perfect knowledge.

With perfect knowledge, the company would have charged 95% higher rates from issue to reproduce the original pricing loss ratio of 63%. To avoid recouping premium on past policies that will not receive the rate increase, we compare lifetime premiums on a present value basis for the subset of policies that are in-force with lifetime-pay. These policies would have paid \$588 million in the history and \$812 million over the lifetime if the company had perfect knowledge and charged 95% higher premiums from issue. In contrast, the actual premium paid by these policies has been \$327 million in the history and is projected to be \$589 million over the lifetime including the requested rate increase. Therefore, these in-force policies will pay less over their lifetime than what they would have paid if the company had perfect knowledge at issue.

Table B-5 below provides a summary of the present value of lifetime premiums under the scenario discussed above by cohort and benefit period.

Table B-5
Lifetime Premium Equivalence
In-force Policies

|                       |                   |                           | III-IOICC I OIICI           | 03  |   |  |  |
|-----------------------|-------------------|---------------------------|-----------------------------|---|---|--|--|
|                       |                   | Original                  | Increase                    | Present Value of Lifeti                   | Present Value of Lifetime Premium (Millions) with:    |  |  |
| Policy Form<br>Cohort | Benefit<br>Period | Pricing<br>Loss<br>Ratios | Needed<br>from<br>Inception | Perfect Knowledge at Issue <sup>[1]</sup> | Actual History and<br>Requested Increase in<br>Future |  |  |
| Prior to Series 11    | All               | 66%                       | 54%                         | \$99                                      | \$82  |  |  |
| Series 11 Individual  | All               | 58                        | 129                         | 553                                       | 343   |  |  |
| Series 11 Group       | All               | 70                        | 79                          | 198                                       | 164   |  |  |
| All                   | Non-Lifetime      | 64                        | 63                          | 499                                       | 417   |  |  |
| All                   | Lifetime          | 60                        | 190                         | 318                                       | 172   |  |  |
| All                   | All               | 63                        | 95                          | 812                                       | 589   |  |  |

<sup>[1]</sup> The increase needed from inception is calculated for each indicated cohort for all lives while the present value of premium is calculated based on lifetime-pay policies currently in force. The difference results in the sum of the cohort and/or benefit period not tying to the totals.

Appendix B 3

Exhibit B-1a

MedAmerica and Affinity Partners

Actual and Projected Experience using Current Assumptions by Calendar Year

Nationwide Experience Restated to Assume Implementation of the Originally Requested Rate Increases

Series 11 and Prior Policy Forms with a Non-Lifetime Benefit Period

|                          |                        | Loss Ratio Demonstration |                          |                   |                  |                          |                          |                  |  |
|--------------------------|------------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|--------------------------|------------------|--|
| 1                        |                        | A                        | Without Interest<br>B    | C = B / A         | D                | <b>W</b>                 | ith Max. Val. Intere     | est<br>G = F / E |  |
|                          |                        | ^                        | D                        | 0-D/A             | <i>-</i>         | L                        | '                        | G-1/E            |  |
|                          | Calendar               | Earned                   | Incurred                 | Incurred          | End of Year      | Earned                   | Incurred                 | Incurred         |  |
|                          | Year                   | Premium                  | Claims                   | Loss Ratio        | Lives            | Premium                  | Claims                   | Loss Ratio       |  |
|                          | 1992<br>1993           | 17,107<br>548,363        | 0<br>112,031             | 0%<br>20%         | 109<br>618       | 70,691<br>1,968,133      | 0<br>390,130             | 0%<br>20%        |  |
|                          | 1993                   | 1,422,762                | 28,415                   | 20%               | 1,328            | 4,743,366                | 93,904                   | 20%              |  |
|                          | 1995                   | 2,303,659                | 103,954                  | 5%                | 1,804            | 7,074,477                | 310,846                  | 4%               |  |
|                          | 1996                   | 3,056,353                | 37,966                   | 1%                | 2,352            | 8,681,349                | 104,007                  | 1%               |  |
|                          | 1997                   | 3,508,641                | 258,439                  | 7%                | 2,382            | 9,405,579                | 722,059                  | 8%               |  |
|                          | 1998                   | 3,868,205                | 631,867                  | 16%               | 2,680            | 9,845,945                | 1,628,343                | 17%              |  |
|                          | 1999<br>2000           | 4,639,240<br>5,901,199   | 1,009,169<br>1,121,780   | 22%<br>19%        | 3,364<br>4,372   | 11,206,370<br>13,542,501 | 2,463,156<br>2,631,992   | 22%<br>19%       |  |
|                          | 2000                   | 7,826,358                | 1,379,844                | 18%               | 5,994            | 17,090,117               | 3,095,051                | 18%              |  |
|                          | 2002                   | 10,551,853               | 2,694,010                | 26%               | 8,319            | 21,963,845               | 5,686,110                | 26%              |  |
| Historical               | 2003                   | 14,450,349               | 1,632,121                | 11%               | 13,894           | 28,712,002               | 3,282,919                | 11%              |  |
| Experience               | 2004                   | 18,607,419               | 4,081,354                | 22%               | 14,961           | 35,319,853               | 7,791,705                | 22%              |  |
|                          | 2005                   | 19,782,715               | 4,516,825                | 23%               | 16,067           | 35,912,350               | 8,251,874                | 23%              |  |
|                          | 2006<br>2007           | 20,097,050<br>19,834,507 | 4,734,626<br>6,850,962   | 24%<br>35%        | 15,962<br>16,091 | 34,852,938<br>32,866,805 | 8,263,665<br>11,437,260  | 24%<br>35%       |  |
|                          | 2007                   | 19,643,967               | 5,323,056                | 27%               | 15.980           | 31,108,187               | 8,491,987                | 27%              |  |
|                          | 2009                   | 19,085,365               | 7,968,212                | 42%               | 15,608           | 28,908,046               | 12,141,446               | 42%              |  |
|                          | 2010                   | 18,224,371               | 9,450,936                | 52%               | 14,772           | 26,409,637               | 13,787,545               | 52%              |  |
|                          | 2011                   | 17,829,171               | 10,200,270               | 57%               | 14,090           | 24,720,670               | 14,214,151               | 57%              |  |
|                          | 2012<br>2013           | 21,284,416<br>20,563,594 | 10,167,657               | 48%<br>52%        | 14,112<br>13,859 | 28,226,925<br>26,091,492 | 13,541,527<br>13,567,908 | 48%<br>52%       |  |
|                          | 2013                   | 19,228,654               | 10,637,364<br>15,688,299 | 82%               | 13,493           | 23,348,968               | 19,134,334               | 82%              |  |
|                          | 2015                   | 18,262,265               | 12,902,717               | 71%               | 13,044           | 21,229,405               | 15,049,880               | 71%              |  |
|                          | 2016                   | 17,495,763               | 13,612,856               | 78%               | 12,945           | 19,470,208               | 15,194,627               | 78%              |  |
|                          | 2017                   | 16,590,002               | 16,273,957               | 98%               | 12,230           | 17,686,085               | 17,381,210               | 98%              |  |
|                          | 2018                   | 16,584,881               | 14,915,919               | 90%               | 11,453           | 16,943,109               | 15,246,960               | 90%              |  |
|                          | 2019<br>2020           | 21,635,093<br>21,259,154 | 13,854,242<br>14,528,844 | 64%<br>68%        | 10,815<br>10,478 | 21,177,662<br>19,940,272 | 13,553,978<br>13,605,341 | 64%<br>68%       |  |
|                          | 2020                   | 20,250,144               | 15,374,313               | 76%               | 10,478           | 18,201,734               | 13,781,855               | 76%              |  |
|                          | 2022                   | 19,223,445               | 16,303,022               | 85%               | 9,804            | 16,559,956               | 13,991,101               | 84%              |  |
|                          | 2023                   | 17,927,764               | 17,248,973               | 96%               | 9,467            | 14,804,433               | 14,172,897               | 96%              |  |
|                          | 2024                   | 16,660,658               | 18,238,088               | 109%              | 9,129            | 13,191,034               | 14,348,879               | 109%             |  |
|                          | 2025<br>2026           | 15,616,201               | 19,235,735               | 123%              | 8,791            | 11,855,549               | 14,491,777               | 122%<br>137%     |  |
|                          | 2026                   | 14,665,392<br>13,770,472 | 20,259,628<br>21,312,281 | 138%<br>155%      | 8,452<br>8,113   | 10,676,913<br>9,614,426  | 14,616,283<br>14,724,869 | 153%             |  |
|                          | 2028                   | 12,812,749               | 22,381,518               | 175%              | 7,775            | 8,578,524                | 14,809,931               | 173%             |  |
|                          | 2029                   | 11,985,579               | 23,585,415               | 197%              | 7,435            | 7,698,060                | 14,948,152               | 194%             |  |
| Projected                | 2030                   | 11,186,480               | 24,895,126               | 223%              | 7,095            | 6,893,647                | 15,114,083               | 219%             |  |
| Future                   | 2031                   | 10,409,197               | 26,166,420               | 251%              | 6,753            | 6,155,836                | 15,219,605               | 247%             |  |
| Experience<br>(60 Years) | 2032<br>2033           | 9,652,801<br>8,921,121   | 27,373,655<br>28,511,895 | 284%<br>320%      | 6,412<br>6,071   | 5,479,241<br>4,861,568   | 15,256,362<br>15,229,389 | 278%<br>313%     |  |
| (00 Tears)               | 2033                   | 8,214,129                | 29,533,389               | 360%              | 5,733            | 4,298,373                | 15,121,086               | 352%             |  |
|                          | 2035                   | 7,533,382                | 30,400,729               | 404%              | 5,397            | 3,786,339                | 14,922,657               | 394%             |  |
|                          | 2036                   | 6,880,243                | 31,079,561               | 452%              | 5,065            | 3,322,207                | 14,628,581               | 440%             |  |
|                          | 2037                   | 6,256,310                | 31,563,926               | 505%              | 4,738            | 2,902,986                | 14,248,853               | 491%             |  |
|                          | 2038                   | 5,663,227                | 31,856,337               | 563%              | 4,418            | 2,525,858                | 13,795,357               | 546%             |  |
|                          | 2039<br>2040           | 5,102,293<br>4,574,551   | 31,904,775<br>31,756,564 | 625%<br>694%      | 4,106<br>3,804   | 2,188,000<br>1,886,638   | 13,256,458<br>12,662,159 | 606%<br>671%     |  |
|                          | 2041                   | 4,080,925                | 31,368,975               | 769%              | 3,512            | 1,619,122                | 12,005,053               | 741%             |  |
|                          | 2042                   | 3,622,199                | 30,775,862               | 850%              | 3,232            | 1,382,919                | 11,307,393               | 818%             |  |
|                          | 2043                   | 3,198,744                | 29,946,245               | 936%              | 2,965            | 1,175,517                | 10,564,898               | 899%             |  |
|                          | 2044                   | 2,810,339                | 28,983,971               | 1,031%            | 2,712            | 994,380                  | 9,819,749                | 988%             |  |
|                          | 2045                   | 2,456,408                | 27,839,876               | 1,133%            | 2,474            | 837,058                  | 9,059,673                | 1,082%           |  |
|                          | 2046<br>2047           | 2,136,091<br>1,848,174   | 26,536,951<br>25,091,168 | 1,242%<br>1,358%  | 2,250<br>2,041   | 701,212<br>584,598       | 8,296,488<br>7,538,210   | 1,183%<br>1,289% |  |
|                          | 2047                   | 1,591,211                | 23,529,960               | 1,479%            | 1,847            | 485,101                  | 6,794,076                | 1,401%           |  |
|                          | 2049-2053              | 5,053,403                | 93,601,788               | 1,852%            | 6,840            | 1,399,513                | 24,206,999               | 1,730%           |  |
|                          | 2054-2058              | 2,122,719                | 58,478,222               | 2,755%            | 3,981            | 492,401                  | 12,475,618               | 2,534%           |  |
|                          | 2059-2063              | 823,609                  | 33,879,985               | 4,114%            | 2,230            | 160,900                  | 6,003,697                | 3,731%           |  |
|                          | 2064-2068              | 297,925                  | 17,741,329               | 5,955%            | 1,141            | 49,435                   | 2,635,697                | 5,332%           |  |
|                          | 2069-2073<br>2074-2078 | 100,887<br>32,623        | 8,207,544<br>3,281,626   | 8,135%<br>10,059% | 491<br>162       | 14,342<br>3,988          | 1,034,831<br>362,893     | 7,215%<br>9,099% |  |
|                          | 2017-2010              | 02,020                   | 5,201,020                | 10,000 /0         | 102              | 5,300                    | 302,033                  | 3,03370          |  |
| Histo                    | ry                     | 341,208,228              | 156,334,605              | 46%               | 261,883          | 537,399,053              | 213,904,596              | 40%              |  |
| Futur                    |                        | 300,375,643              | 966,627,936              | 322%              | 195,869          | 206,499,741              | 438,604,929              | 212%             |  |
| Lifetin                  | ne                     | 641,583,871              | 1,122,962,541            | 175%              | 457,752          | 743,898,793              | 652,509,525              | 88%              |  |

Exhibit B-1b

MedAmerica and Affinity Partners

Actual and Projected Experience using Current Assumptions by Calendar Year

Nationwide Experience Restated to Assume Implementation of the Originally Requested Rate Increases

Series 11 and Prior Policy Forms with a Lifetime Benefit Period

| Calendar   Premium   Pre |            |           | Loss Ratio Demonstration |                  |           |             |             |             |                  |  |
|--|------------|-----------|--------------------------|------------------|-----------|-------------|-------------|-------------|------------------|--|
| Calendar   Permium   Claims   Incurred   Claims   Claim |            |           |                          | Without Interest | C = B / A | n           |             |             |                  |  |
| Permium  |            |           | A                        | D                | C - B / A | ט           | E           | r           | G-F/E            |  |
| 1992   |            | Calendar  | Earned                   | Incurred         | Incurred  | End of Year | Earned      | Incurred    | Incurred         |  |
| 1993   |            |           |                          |                  |           |             |             |             |                  |  |
| 1994   77,720  |            |           |                          |                  |           |             |             |             | 0%               |  |
| 1996   181,399   5,697   3%   139   541,395   17,932   3   3   1996   1997   749,200   0   0   0   0   0   0   0   0   0   |            |           |                          |                  |           |             |             |             | 0%<br>0%         |  |
| 1996   395,761   96,266   24%   279   1,085,981   259,253   2,24   1997   749,280   0 0 0%   767   2,979,493   0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0   |            |           |                          |                  |           |             |             |             | 3%               |  |
| 1997   |            |           | ,                        | ,                |           |             | ,           | ,           | 24%              |  |
| 1999   |            |           |                          | ,                |           |             |             |             | 0%               |  |
| 2000   |            | 1998      | 1,202,904                |                  |           |             |             | 0           | 0%               |  |
| 2001   |            |           |                          |                  |           |             | , ,         |             | 25%              |  |
| Historical   2002  |            |           |                          |                  |           |             |             | ,           | 2%               |  |
| Historical   2003  |            |           | , ,                      |                  |           |             | , ,         | , ,         | 18%<br>29%       |  |
| Experience   2004   7.991,585   2.199,800   277,78   28%   3.861   15,040,313   4,144,540   28   2006   8,259,800   2,287,738   28%   3,861   15,040,335,61   30,000   2,287,738   28%   3,861   15,040,335,61   30,000   2,287,738   28%   3,862   14,308,884   4,485,40   28   2009   7,775,744   2,2831,760   36%   3,674   12,333,260   4,485,944   36   2009   7,741,059   3,180,628   43%   3,592   11,217,877   4,481,753   43   3,592   12,217,877   4,481,753   43   3,592   12,217,877   4,481,753   43   4,592   2011   6,649,615   3,204,882   48%   3,252   3,243,02   4,485,527   4,881,753   4,881,753   2,24 | Historical |           |                          |                  |           |             |             |             | 26%              |  |
| 2005   |            |           |                          |                  |           |             |             |             | 27%              |  |
| 2007   |            |           |                          | , ,              |           |             |             | , ,         | 28%              |  |
| 2008   |            | 2006      | 8,256,056                | 2,501,450        |           | 3,825       | 14,308,884  | 4,336,561   | 30%              |  |
| 2009   |            |           |                          |                  |           |             |             | , ,         | 46%              |  |
| 2010   |            |           | , ,                      | , ,              |           | ,           | , ,         | , ,         | 36%              |  |
| 2011   |            |           |                          |                  |           |             | , ,         |             | 43%              |  |
| 2012   |            |           | , ,                      | , ,              |           |             |             | -, ,        | 48%              |  |
| 2013   |            |           |                          | , ,              |           |             | , ,         | , ,         | 65%              |  |
| 2015   |            |           |                          |                  |           |             |             | -,,         | 52%              |  |
| 2016   |            | 2014      |                          |                  | 109%      | 3,086       | 7,614,698   | 8,330,868   | 109%             |  |
| 2017   2018   5.657.673   7.782.5374   133%   2.608   5.783.470   7.999.634   138   2.008   2.416   9.777.925   9.339.612   9.94.972   9.547.413   9.6%   2.416   9.777.925   9.339.612   9.94.972   9.547.413   9.6%   2.416   9.777.925   9.339.612   9.94.972   9.547.413   9.6%   2.416   9.777.925   9.339.612   9.94.972   9.643.083   10.753.094   11.2%   2.258   8.640.772   9.632.882   111   2022   9.652.599   11,437.097   12.5%   2.175   7.860.037   9.644.683   12.5   2.023   8.651.547   12.097.810   140%   2.091   7.101.067   9.924.785   140   2.024   8.105.980   12.787.486   158%   2.004   6.367.883   10.039.293   158   2.025   7.627.284   13.427.405   176%   1.916   5.734.861   10.088.367   176   2.026   7.160.041   14.069.678   197%   1.826   5.152.756   10.16.555   1.96   2.027   6.701.832   14.708.870   2.19%   1.736   4.101.202   2.028   6.250.434   15.336.461   2.45%   1.546   4.121.027   10.100.142   2.45   2.029   5.807.077   16.021.179   2.76%   1.556   3.245.583   10.113.806   312   4.948.993   17.447.129   353%   1.375   2.861.927   10.073.242   2.55   2.032   4.538.869   18.036.065   397%   1.286   2.512.669   9.967.045   3.97   2.034   3.766.190   18.966.378   5.04%   1.112   1.910.94   9.603.486   5.03   2.035   2.035   3.407.516   19.373.481   5.69%   1.026   3.684.840   3.960.246   4.46   2.034   2.034   3.766.190   18.966.378   5.04%   1.112   1.910.94   9.603.486   5.03   2.037   2.749.793   19.793.2557   7.20%   8.68   1.224.735   8.792.133   7.18   2.039   2.175.110   19.650.285   9.03%   7.20   8.84.97   8.002.548   9.01   2.040   1.919.412   1.93.28.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.088.603   3.098.60 |            |           | 5,700,309                |                  |           |             | -,,-        | , ,         | 192%             |  |
| 2018   5,657,873   7,825,374   138%   2,608   5,783,470   7,996,634   138  |            |           |                          | , ,              |           |             | , ,         |             | 155%             |  |
| 2019   |            |           | , ,                      |                  |           |             |             | , ,         | 202%             |  |
| 2020   |            |           | -,,-                     |                  |           |             | , ,         | , ,         | 138%<br>96%      |  |
| 2021   9,643,083   10,753,094   112%   2,258   6,640,772   9,632,882   111   |            |           |                          | -,- , -          |           |             |             |             | 100%             |  |
| 2022   |            |           |                          |                  |           |             |             |             | 111%             |  |
| 2023   |            |           |                          | , ,              |           |             | , ,         |             | 125%             |  |
| 2025   |            | 2023      | 8,651,547                | 12,097,810       |           | 2,091       | 7,101,067   |             | 140%             |  |
| Decided   Color  |            |           |                          |                  |           |             |             |             | 158%             |  |
| Decided   Color  |            |           |                          |                  |           |             |             |             | 176%             |  |
| 2028   |            |           | , ,                      | , ,              |           |             |             | , ,         | 219%             |  |
| Projected   2039   |            |           |                          |                  |           |             |             |             | 245%             |  |
| Projected   2030   |            |           |                          |                  |           |             |             | , ,         | 276%             |  |
| Experience (60 Years) 2032   | Projected  | 2030      | 5,372,549                | 16,766,095       | 312%      |             |             | 10,113,806  | 312%             |  |
| (60 Years) 2033  |            |           |                          |                  |           |             |             |             | 352%             |  |
| 2034 3,766,190 18,966,378 504% 1,112 1,910,904 9,603,486 503 2035 3,407,516 19,373,481 569% 1,028 1,655,321 9,390,350 567 2036 3,668,603 19,623,229 639% 947 1,427,312 9,105,349 638 2037 2,749,793 19,792,357 720% 868 1,224,735 8,792,183 718 2038 2,451,790 19,775,892 807% 792 1,045,739 8,410,970 804 2039 2,175,110 19,650,285 903% 720 888,497 8,002,548 901 2040 1,919,412 19,328,603 1,007% 651 750,963 7,538,156 1,004 2041 1,684,497 18,861,848 1,120% 586 631,306 7,044,872 1,116 2042 1,470,098 18,208,703 1,239% 526 527,815 6,513,734 1,234 2043 1,275,849 17,491,120 1,371% 469 438,885 5,992,324 1,365 2044 1,101,186 16,725,251 1,519% 416 362,977 5,487,527 1,512 2045 945,174 15,922,071 1,685% 368 298,570 5,003,118 1,676 2046 806,961 15,108,727 1,872% 324 244,312 4,546,683 1,861 2047 685,405 14,223,098 2,075% 284 198,901 4,099,038 2,061 2048 579,358 13,364,606 2,305% 247 161,158 3,685,649 2,287 2049-2053 1,755,258 53,115,699 3,026% 813 437,302 12,980,720 2,968 672,474 30,354,030 4,514% 358 135,425 5,980,342 4,416 2059-2063 226,739 13,823,464 6,097% 136 36,685 2,183,125 5,951 2044-2078 3,810 460,490 12,085% 4 335 37,953 11,343   |            |           | , ,                      | , ,              |           | ,           | , ,         | , ,         | 397%             |  |
| 2035 3,407,516 19,373,481 569% 1,028 1,655,321 9,390,350 567 2036 3,068,603 19,623,229 639% 947 1,427,312 9,105,349 638 2037 2,749,793 19,792,357 720% 868 1,224,735 8,792,183 718 2038 2,451,790 19,775,892 807% 792 1,045,739 8,410,970 804 2039 2,175,110 19,650,285 903% 720 888,497 8,002,548 901 2040 1,919,412 19,328,603 1,007% 651 750,963 7,538,156 1,004 2041 1,684,497 18,861,848 1,120% 586 631,306 7,044,872 1,116 2042 1,470,098 18,208,703 1,239% 526 527,815 6,513,734 1,234 2043 1,275,849 17,491,120 1,371% 469 438,885 5,992,324 1,365 2044 1,101,186 16,725,251 1,519% 416 362,977 5,487,527 1,512 2045 945,174 15,922,071 1,685% 368 298,570 5,003,118 1,676 2046 806,961 15,108,727 1,872% 324 244,312 4,546,683 1,861 2047 685,405 14,223,098 2,075% 284 198,901 4,099,038 2,061 2048 579,358 13,354,606 2,305% 247 161,158 3,685,649 2,287 2049-2053 1,755,258 53,115,699 3,026% 813 437,302 12,980,720 2,968 2054-2058 672,474 30,354,030 4,514% 358 135,425 5,980,342 4,416 2069-2073 16,361 1,616,340 9,879% 14 1,710 164,627 9,9627 2074-2078 3,810 460,490 12,085% 4 335 37,953 11,343   | (60 Years) |           |                          | , ,              |           |             | , ,         | , ,         |                  |  |
| 2036   3,068,603   19,623,229   639%   947   1,427,312   9,105,349   638   2037   2,749,793   19,792,357   720%   868   1,224,735   8,792,183   718   72038   2,451,790   19,775,892   807%   792   1,045,739   8,410,970   804   804   804   804   802,548   801   804   804   804   804   802,548   801   804  |            |           |                          |                  |           |             |             |             | 503%<br>567%     |  |
| 2037   |            |           |                          |                  |           |             | , , -       |             | 638%             |  |
| 2038   |            |           | , ,                      |                  |           |             |             |             | 718%             |  |
| 2040   |            |           | 2,451,790                | 19,775,892       |           |             | 1,045,739   | 8,410,970   | 804%             |  |
| 2041   |            |           |                          |                  |           |             |             |             | 901%             |  |
| 2042   |            |           |                          |                  |           |             |             |             |                  |  |
| 2043   |            |           |                          |                  |           |             |             |             |                  |  |
| 2044   |            |           |                          | , ,              |           |             |             |             |                  |  |
| 2045   |            |           |                          |                  |           |             |             |             | 1,512%           |  |
| 2046   |            |           | , ,                      |                  |           |             |             |             | 1,676%           |  |
| 2048         579,358         13,354,606         2,305%         247         161,158         3,685,649         2,287           2049-2053         1,755,258         53,115,699         3,026%         813         437,302         12,980,720         2,968           2054-2058         672,474         30,354,030         4,514%         358         135,425         5,980,342         4,416           2059-2063         226,739         13,823,464         6,097%         136         36,685         2,183,125         5,951           2064-2068         65,200         5,314,747         8,151%         45         8,439         674,647         7,994           2069-2073         16,361         1,616,340         9,879%         14         1,710         164,627         9,627           2074-2078         3,810         460,490         12,085%         4         335         37,953         11,343           History         126,234,286         82,914,744         66%         62,857         199,537,741         111,103,788         56           Future         139,043,089         582,137,764         419%         37,993         95,701,567         273,896,206         286  |            |           |                          |                  |           | 324         |             |             | 1,861%           |  |
| 2049-2053  |            |           |                          |                  |           |             |             |             | 2,061%           |  |
| 2054-2058  |            |           |                          | , ,              |           |             |             |             | 2,287%           |  |
| 2059-2063   226,739   13,823,464   6,097%   136   36,685   2,183,125   5,951     2064-2068   65,200   5,314,747   8,151%   45   8,439   674,647   7,994     2069-2073   16,361   1,616,340   9,879%   14   1,710   164,627   9,627     2074-2078   3,810   460,490   12,085%   4   335   37,953   11,343     History   126,234,286   82,914,744   66%   62,857   199,537,741   111,103,788   56     Future   139,043,089   582,137,764   419%   37,993   95,701,567   273,896,206   286  |            |           |                          |                  |           |             | ,           |             |                  |  |
| 2064-2068  |            |           |                          |                  |           |             |             |             | 4,416%<br>5,951% |  |
| 2069-2073   16,361   |            |           |                          | , ,              |           |             |             |             | 7,994%           |  |
| History 126,234,286 82,914,744 66% 62,857 199,537,741 111,103,788 56 Future 139,043,089 582,137,764 419% 37,993 95,701,567 273,896,206 286   |            |           |                          |                  |           |             |             |             | 9,627%           |  |
| Future 139,043,089 582,137,764 419% 37,993 95,701,567 273,896,206 286  |            | 2074-2078 | 3,810                    | 460,490          | 12,085%   | 4           | 335         | 37,953      | 11,343%          |  |
| Future 139,043,089 582,137,764 419% 37,993 95,701,567 273,896,206 286  | His        | torv      | 126 234 286              | 82,914 744       | 66%       | 62 857      | 199 537 741 | 111,103,788 | 56%              |  |
|  |            |           |                          |                  |           |             |             |             | 286%             |  |
|  |            |           | 265,277,376              | 665,052,508      | 251%      | 100,850     | 295,239,307 | 384,999,994 | 130%             |  |

Exhibit B-2a

MedAmerica and Affinity Partners

Actual and Projected Experience using Current Assumptions by Calendar Year

Nationwide Experience Restated to Reflect Pennsylvania-Specific Rate Increase History and Request

Series 11 and Prior Policy Forms with a Non-Lifetime Benefit Period

|                      |                        | Loss Ratio Demonstration   |                            |                  |                    |                            |                            |                  |
|----------------------|------------------------|----------------------------|----------------------------|------------------|--------------------|----------------------------|----------------------------|------------------|
|                      |                        | A                          | Without Interest<br>B      | C = B / A        | D                  | E W                        | ith Max. Val. Inter        | est<br>G = F / E |
|                      |                        |                            | D                          | U-B/A            | U                  | <b>E</b>                   |                            | G-F/E            |
|                      | Calendar               | Earned                     | Incurred                   | Incurred         | End of Year        | Earned                     | Incurred                   | Incurred         |
|                      | Year<br>1992           | Premium                    | Claims 0                   | Loss Ratio       | Lives              | Premium 70.604             | Claims<br>0                | Loss Ratio       |
|                      | 1992                   | 17,107<br>548,363          | 112,031                    | 0%<br>20%        | 109<br>618         | 70,691<br>1,968,133        | 390,130                    | 0%<br>20%        |
|                      | 1994                   | 1,422,762                  | 28,415                     | 2%               | 1,328              | 4,743,366                  | 93,904                     | 2%               |
|                      | 1995                   | 2,303,659                  | 103,954                    | 5%               | 1,804              | 7,074,477                  | 310,846                    | 4%               |
|                      | 1996                   | 3,056,353                  | 37,966                     | 1%               | 2,352              | 8,681,349                  | 104,007                    | 1%               |
|                      | 1997                   | 3,508,641                  | 258,439                    | 7%               | 2,382              | 9,405,579                  | 722,059                    | 8%               |
|                      | 1998<br>1999           | 3,868,205<br>4,639,240     | 631,867<br>1,009,169       | 16%<br>22%       | 2,680<br>3,364     | 9,845,945<br>11,206,370    | 1,628,343<br>2,463,156     | 17%<br>22%       |
|                      | 2000                   | 5,901,199                  | 1,121,780                  | 19%              | 4,372              | 13,542,501                 | 2,631,992                  | 19%              |
|                      | 2001                   | 7,826,358                  | 1,379,844                  | 18%              | 5,994              | 17,090,117                 | 3,095,051                  | 18%              |
|                      | 2002                   | 10,551,853                 | 2,694,010                  | 26%              | 8,319              | 21,963,845                 | 5,686,110                  | 26%              |
| Historical           | 2003                   | 14,450,349                 | 1,632,121                  | 11%              | 13,894             | 28,712,002                 | , ,                        | 11%              |
| Experience           | 2004<br>2005           | 18,607,419                 | 4,081,354                  | 22%<br>23%       | 14,961             | 35,319,853                 | 7,791,705                  | 22%<br>23%       |
|                      | 2005                   | 19,782,715<br>20,097,050   | 4,516,825<br>4,734,626     | 24%              | 16,067<br>15,962   | 35,912,350<br>34,852,938   | 8,251,874<br>8,263,665     | 23%<br>24%       |
|                      | 2007                   | 19,834,507                 | 6,850,962                  | 35%              | 16,091             | 32,866,805                 | 11,437,260                 | 35%              |
|                      | 2008                   | 19,643,967                 | 5,323,056                  | 27%              | 15,980             | 31,108,187                 | 8,491,987                  | 27%              |
|                      | 2009                   | 19,085,365                 | 7,968,212                  | 42%              | 15,608             | 28,908,046                 | 12,141,446                 | 42%              |
|                      | 2010                   | 18,306,690                 | 9,450,936                  | 52%              | 14,772             | 26,529,050                 | 13,787,545                 | 52%              |
|                      | 2011<br>2012           | 18,285,568<br>19,129,837   | 10,200,270<br>10,167,657   | 56%<br>53%       | 14,090<br>14,112   | 25,352,144<br>25,369,061   | 14,214,151<br>13,541,527   | 56%<br>53%       |
|                      | 2012                   | 19,963,074                 | 10,637,364                 | 53%              | 13,859             | 25,309,001                 | 13,567,908                 | 54%              |
|                      | 2014                   | 19,227,671                 | 15,688,299                 | 82%              | 13,493             | 23,347,774                 | 19,134,334                 | 82%              |
|                      | 2015                   | 18,261,332                 | 12,902,717                 | 71%              | 13,044             | 21,228,321                 | 15,049,880                 | 71%              |
|                      | 2016                   | 17,494,869                 | 13,612,856                 | 78%              | 12,945             | 19,469,213                 | 15,194,627                 | 78%              |
|                      | 2017                   | 16,589,478                 | 16,273,957                 | 98%              | 12,230             | 17,685,527                 | 17,381,210                 | 98%              |
|                      | 2018<br>2019           | 16,459,725<br>17,513,868   | 14,915,919<br>13.952.604   | 91%<br>80%       | 11,453<br>10,911   | 16,814,642<br>17,143,807   | 15,246,960<br>13,650,231   | 91%<br>80%       |
|                      | 2019                   | 18,871,627                 | 14,539,196                 | 77%              | 10,259             | 17,143,807                 | 13,615,108                 | 77%              |
|                      | 2021                   | 19,864,099                 | 15,009,723                 | 76%              | 9,737              | 17,855,872                 | 13,455,110                 | 75%              |
|                      | 2022                   | 19,071,050                 | 15,859,914                 | 83%              | 9,415              | 16,430,349                 | 13,610,942                 | 83%              |
|                      | 2023                   | 17,770,716                 | 16,776,521                 | 94%              | 9,094              | 14,676,856                 | 13,784,867                 | 94%              |
|                      | 2024                   | 16,499,513                 | 17,736,162                 | 107%             | 8,772              | 13,065,985                 | 13,954,227                 | 107%             |
|                      | 2025<br>2026           | 15,459,115<br>14,515,312   | 18,705,014<br>19,699,144   | 121%<br>136%     | 8,450<br>8,127     | 11,739,169<br>10,570,798   | 14,092,285<br>14,212,390   | 120%<br>134%     |
|                      | 2027                   | 13,628,792                 | 20,720,731                 | 152%             | 7,804              | 9,518,824                  | 14,316,773                 | 150%             |
|                      | 2028                   | 12,676,039                 | 21,757,781                 | 172%             | 7,482              | 8,490,353                  | 14,397,979                 | 170%             |
|                      | 2029                   | 11,858,024                 | 22,928,739                 | 193%             | 7,158              | 7,619,596                  | 14,532,916                 | 191%             |
| Projected            | 2030                   | 11,068,252                 | 24,199,948                 | 219%             | 6,833              | 6,824,321                  | 14,693,185                 | 215%             |
| Future<br>Experience | 2031<br>2032           | 10,300,213<br>9,552,820    | 25,434,851<br>26,609,194   | 247%<br>279%     | 6,507<br>6,181     | 6,094,950<br>5,426,051     | 14,795,478<br>14,831,985   | 243%<br>273%     |
| (60 Years)           | 2032                   | 8,829,959                  | 27,717,556                 | 314%             | 5,855              | 4,815,418                  | 14,807,100                 | 307%             |
| (00 : 00:0)          | 2034                   | 8,131,494                  | 28,712,442                 | 353%             | 5,531              | 4,258,595                  | 14,703,105                 | 345%             |
|                      | 2035                   | 7,458,928                  | 29,559,063                 | 396%             | 5,210              | 3,752,288                  | 14,512,220                 | 387%             |
|                      | 2036                   | 6,813,589                  | 30,223,006                 | 444%             | 4,892              | 3,293,274                  | 14,228,500                 | 432%             |
|                      | 2037                   | 6,197,051                  | 30,697,932                 | 495%             | 4,579<br>4,272     | 2,878,601                  | 13,861,381                 | 482%             |
|                      | 2038<br>2039           | 5,610,909<br>5,056,419     | 30,987,496<br>31,040,908   | 552%<br>614%     | 3,973              | 2,505,477<br>2,171,109     | 13,422,942<br>12,901,718   | 536%<br>594%     |
|                      | 2040                   | 4,534,619                  | 30,903,391                 | 681%             | 3,682              | 1,872,766                  | 12,326,518                 | 658%             |
|                      | 2041                   | 4,046,405                  | 30,532,233                 | 755%             | 3,402              | 1,607,831                  | 11,689,670                 | 727%             |
|                      | 2042                   | 3,592,538                  | 29,960,585                 | 834%             | 3,133              | 1,373,803                  | 11,012,961                 | 802%             |
|                      | 2043                   | 3,173,404                  | 29,158,070                 | 919%             | 2,876              | 1,168,215                  | 10,292,130                 | 881%             |
|                      | 2044<br>2045           | 2,788,806<br>2,438,197     | 28,227,147<br>27,116,869   | 1,012%<br>1,112% | 2,632<br>2,402     | 988,576<br>832,476         | 9,568,750<br>8,829,824     | 968%<br>1,061%   |
|                      | 2046                   | 2,120,756                  | 25,850,173                 | 1,219%           | 2,186              | 697,620                    | 8,087,155                  | 1,159%           |
|                      | 2047                   | 1,835,322                  | 24,443,040                 | 1,332%           | 1,985              | 581,802                    |                            | 1,263%           |
|                      | 2048                   | 1,580,485                  | 22,922,489                 | 1,450%           | 1,798              | 482,941                    | 6,623,755                  | 1,372%           |
|                      | 2049-2053              | 5,022,153                  | 91,143,862                 | 1,815%           | 6,671              | 1,394,452                  | , ,                        | 1,692%           |
|                      | 2054-2058<br>2059-2063 | 2,112,973                  | 56,915,743                 | 2,694%           | 3,900              | 491,674                    | 12,157,823                 | 2,473%           |
|                      | 2059-2063 2064-2068    | 822,735<br>299,171         | 33,041,853<br>17,394,595   | 4,016%<br>5,814% | 2,194<br>1,126     | 161,312<br>49,832          | 5,864,946<br>2,588,563     | 3,636%<br>5,195% |
|                      | 2069-2073              | 101,624                    | 8,083,510                  | 7,954%           | 485                | 14,496                     | 1,020,301                  | 7,038%           |
|                      | 2074-2078              | 32,791                     | 3,225,799                  | 9,837%           | 160                | 4,020                      | 357,001                    | 8,882%           |
|                      |                        | 000 000                    | 150                        |                  |                    | 504555                     | 0.40 == =                  |                  |
| Hist<br>Fut          |                        | 338,863,355<br>291,249,768 | 156,334,605<br>941,787,282 | 46%<br>323%      | 261,883<br>189,675 | 534,397,399<br>198,554,800 | 213,904,596<br>427,742,345 | 40%<br>215%      |
| Lifet                |                        | 630,113,123                | 1,098,121,887              | 174%             | 451,558            | 732,952,199                | 641,646,941                | 88%              |
| Lile                 |                        | 555,115,125                | 1,000,121,007              | 11-7/0           | 701,000            | 102,002,100                | 011,070,071                | 30 /0            |

Exhibit B-2b
MedAmerica and Affinity Partners
Actual and Projected Experience using Current Assumptions by Calendar Year
Nationwide Experience Restated to Reflect Pennsylvania-Specific Rate Increase History and Request
Series 11 and Prior Policy Forms with a Lifetime Benefit Period

|             |                        | Loss Ratio Demonstration   |                           |                  |                  |                           |                            |                          |
|-------------|------------------------|----------------------------|---------------------------|------------------|------------------|---------------------------|----------------------------|--------------------------|
|             |                        |                            | Without Interest<br>B     | C = B / A        | D                | W                         | ith Max. Val. Inter        | e <b>st</b><br>G = F / E |
|             |                        | Α                          | В                         | C = R \ A        | ט                | E                         | F                          | G=F/E                    |
|             | Calendar               | Earned                     | Incurred                  | Incurred         | End of Year      | Earned                    | Incurred                   | Incurred                 |
|             | Year                   | Premium                    | Claims                    | Loss Ratio       | Lives            | Premium                   | Claims                     | Loss Ratio               |
|             | 1992                   | 217                        | 0                         | 0%               | 2                | 895                       | 0                          | 0%                       |
|             | 1993                   | 9,165                      | 0                         | 0%               | 16               | 32,606                    | 0                          | 0%                       |
|             | 1994<br>1995           | 77,720<br>181,369          | 5,697                     | 0%<br>3%         | 48<br>139        | 257,091<br>541,395        | 17,932                     | 0%<br>3%                 |
|             | 1996                   | 395,761                    | 96,296                    | 24%              | 279              | 1,085,958                 | 259,253                    | 24%                      |
|             | 1997                   | 749,280                    | 0                         | 0%               | 502              | 1,946,204                 | 0                          | 0%                       |
|             | 1998                   | 1,202,904                  | 0                         | 0%               | 767              | 2,979,493                 | 0                          | 0%                       |
|             | 1999                   | 1,818,242                  | 460,544                   | 25%              | 1,147            | 4,302,098                 | 1,086,524                  | 25%                      |
|             | 2000                   | 2,607,379                  | 51,212                    | 2%               | 1,530            | 5,897,702                 | 115,617                    | 2%                       |
|             | 2001<br>2002           | 3,627,362<br>5,065,390     | 651,632<br>1,435,880      | 18%<br>28%       | 2,150<br>2,825   | 7,846,556<br>10,481,039   | 1,407,790<br>2,998,934     | 18%<br>29%               |
| Historical  | 2002                   | 6,527,659                  | 1,688,863                 | 26%              | 3,487            | 12,921,939                | 3,341,157                  | 26%                      |
| Experience  | 2004                   | 7,991,585                  | 2,159,800                 | 27%              | 3,832            | 15,134,313                | 4,088,836                  | 27%                      |
| ·           | 2005                   | 8,299,890                  | 2,287,738                 | 28%              | 3,861            | 15,040,397                | 4,144,540                  | 28%                      |
|             | 2006                   | 8,256,056                  | 2,501,450                 | 30%              | 3,825            | 14,308,884                | 4,336,561                  | 30%                      |
|             | 2007                   | 8,103,745                  | 3,731,231                 | 46%              | 3,761            | 13,432,719                | 6,189,984                  | 46%                      |
|             | 2008<br>2009           | 7,775,784<br>7,413,059     | 2,831,760<br>3,180,528    | 36%<br>43%       | 3,674<br>3,592   | 12,333,260<br>11,251,787  | 4,495,494<br>4,831,753     | 36%<br>43%               |
|             | 2010                   | 6,962,184                  | 6,374,822                 | 92%              | 3,459            | 10,112,872                | 9,271,650                  | 92%                      |
|             | 2011                   | 6,927,030                  | 3,204,986                 | 46%              | 3,325            | 9,629,307                 | 4,458,597                  | 46%                      |
|             | 2012                   | 7,066,341                  | 5,082,142                 | 72%              | 3,238            | 9,400,201                 | 6,765,834                  | 72%                      |
|             | 2013                   | 6,922,721                  | 3,720,661                 | 54%              | 3,168            | 8,812,794                 | 4,742,664                  | 54%                      |
|             | 2014                   | 6,250,261                  | 6,833,873                 | 109%             | 3,086            | 7,614,309                 | 8,330,868                  | 109%                     |
|             | 2015<br>2016           | 5,700,017<br>5,192,892     | 10,949,151<br>8,062,388   | 192%<br>155%     | 2,941<br>2,842   | 6,645,673<br>5,794,726    | 12,772,840<br>9,000,247    | 192%<br>155%             |
|             | 2016                   | 4,845,639                  | 9,778,716                 | 202%             | 2,753            | 5,175,521                 | 10,447,081                 | 202%                     |
|             | 2018                   | 5,002,268                  | 7,825,374                 | 156%             | 2,608            | 5,113,293                 | 7,999,634                  | 156%                     |
|             | 2019                   | 5,407,733                  | 9,618,823                 | 178%             | 2,483            | 5,290,325                 | 9,409,477                  | 178%                     |
|             | 2020                   | 6,287,917                  | 10,152,494                | 161%             | 2,300            | 5,887,214                 | 9,504,000                  | 161%                     |
|             | 2021                   | 9,267,212                  | 10,180,099                | 110%             | 2,129            | 8,304,145                 | 9,119,644                  | 110%                     |
|             | 2022<br>2023           | 9,310,568<br>8,781,418     | 10,720,630<br>11,337,172  | 115%<br>129%     | 2,052<br>1,973   | 7,984,903<br>7,207,968    | 9,190,548<br>9,300,896     | 115%<br>129%             |
|             | 2024                   | 8,216,010                  | 11,983,613                | 146%             | 1,892            | 6,454,658                 | 9,408,374                  | 146%                     |
|             | 2025                   | 7,728,568                  | 12,583,334                | 163%             | 1,809            | 5,811,402                 | 9,454,419                  | 163%                     |
|             | 2026                   | 7,254,441                  | 13,187,963                | 182%             | 1,726            | 5,221,119                 | 9,482,836                  | 182%                     |
|             | 2027                   | 6,790,344                  | 13,793,275                | 203%             | 1,642            | 4,677,762                 | 9,491,926                  | 203%                     |
|             | 2028<br>2029           | 6,333,288                  | 14,389,981                | 227%<br>256%     | 1,557            | 4,176,118                 | 9,477,212                  | 227%<br>255%             |
| Projected   | 2030                   | 5,884,465<br>5,444,691     | 15,045,948<br>15,754,705  | 289%             | 1,473<br>1,388   | 3,714,150<br>3,289,636    | 9,483,675<br>9,504,181     | 289%                     |
| Future      | 2031                   | 5,016,186                  | 16,408,770                | 327%             | 1,303            | 2,901,250                 | 9,474,253                  | 327%                     |
| Experience  | 2032                   | 4,601,440                  | 16,978,147                | 369%             | 1,220            | 2,547,763                 | 9,382,970                  | 368%                     |
| (60 Years)  | 2033                   | 4,202,165                  | 17,457,743                | 415%             | 1,137            | 2,227,464                 | 9,235,097                  | 415%                     |
|             | 2034                   | 3,820,392                  | 17,876,553                | 468%             | 1,056            | 1,938,824                 | 9,052,246                  | 467%                     |
|             | 2035<br>2036           | 3,457,873                  | 18,275,983                | 529%<br>595%     | 977<br>901       | 1,680,179                 | 8,858,962                  | 527%<br>593%             |
|             | 2037                   | 3,115,337<br>2,793,105     | 18,529,487<br>18,712,861  | 670%             | 826              | 1,449,419<br>1,244,368    | 8,598,401<br>8,313,195     | 668%                     |
|             | 2038                   | 2,491,831                  | 18,720,375                | 751%             | 755              | 1,063,131                 | 7,962,582                  | 749%                     |
|             | 2039                   | 2,212,037                  | 18,626,667                | 842%             | 687              | 903,866                   | 7,586,195                  | 839%                     |
|             | 2040                   | 1,953,388                  | 18,344,292                | 939%             | 622              | 764,513                   | 7,154,737                  | 936%                     |
|             | 2041                   | 1,715,644                  | 17,924,943                | 1,045%           | 560              | 643,209                   | 6,695,331                  | 1,041%                   |
|             | 2042<br>2043           | 1,498,538<br>1,301,728     | 17,320,471<br>16,653,094  | 1,156%<br>1,279% | 502<br>449       | 538,230<br>447,965        | 6,196,310<br>5,705,440     | 1,151%<br>1,274%         |
|             | 2044                   | 1,124,631                  | 15,934,224                | 1,417%           | 399              | 370,859                   | 5,228,100                  | 1,410%                   |
|             | 2045                   | 966,308                    | 15,182,983                | 1,571%           | 353              | 305,377                   | 4,770,909                  | 1,562%                   |
|             | 2046                   | 825,917                    | 14,421,213                | 1,746%           | 310              | 250,162                   | 4,339,780                  | 1,735%                   |
|             | 2047                   | 702,325                    | 13,582,615                | 1,934%           | 272              | 203,902                   | 3,914,425                  | 1,920%                   |
|             | 2048                   | 594,394                    | 12,757,166                | 2,146%           | 237              | 165,414                   | 3,520,651                  | 2,128%                   |
|             | 2049-2053<br>2054-2058 | 1,807,689<br>699,585       | 50,785,150<br>29,148,775  | 2,809%<br>4,167% | 782<br>345       | 450,463<br>140,825        | 12,408,869<br>5,739,186    | 2,755%<br>4,075%         |
|             | 2059-2063              | 240,226                    | 13,431,571                | 5,591%           | 132              | 38,812                    | 2,119,167                  | 5,460%                   |
|             | 2064-2068              | 70,869                     | 5,214,124                 | 7,357%           | 44               | 9,161                     | 661,504                    | 7,221%                   |
|             | 2069-2073              | 18,111                     | 1,595,546                 | 8,810%           | 13               | 1,895                     | 162,462                    | 8,574%                   |
|             | 2074-2078              | 4,267                      | 456,888                   | 10,708%          | 4                | 377                       | 37,675                     | 10,003%                  |
| 110         | ton                    | 404 074 040                | 00 04 4 74 4              | 000/             | 60.057           | 100 000 000               | 144 400 700                | F00/                     |
| Hist<br>Fut |                        | 124,971,918<br>131,940,640 | 82,914,744<br>553,087,679 | 66%<br>419%      | 62,857<br>36,311 | 198,093,030<br>88,306,829 | 111,103,788<br>259,945,636 | 56%<br>294%              |
| Life        |                        | 256,912,558                | 636,002,423               | 248%             | 99,168           | 286,399,859               | 371,049,423                | 130%                     |
| Life        |                        | 200,012,000                | 230,002,120               | 21070            | 30,100           | _55,556,666               | 27.1,070,120               | 10070                    |

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### Supplement to the Series 11 and Prior Actuarial Memorandum

### January 10, 2020

<u>Product</u> <u>Number</u>

Series 11 Group

Comprehensive Form GRP11-341-MA-PA-601 Comprehensive Certificate GRP11-342-MA-PA-601

The experience provided in this supplement to the actuarial memorandum captures the pooled nationwide experience of the above-listed policy form(s) and similar individual and group policy forms of the same product series issued nationwide by MedAmerica Insurance Company (MedAmerica) and its affinity partners. Section 15 of the actuarial memorandum provides a description as to the appropriateness of pooling the experience of these policy forms. Pennsylvania-specific experience is not considered fully credible, but is being provided as required.

#### A. Purpose of Supplement

This supplement has been prepared for the purpose of demonstrating that the requested rate increase is in compliance with Chapter 18 Section 3803(c) and (e), and Reg. 89.83 of the Insurance Regulations for the state of Pennsylvania. It may not be appropriate for other purposes.

#### B. Demonstration of Compliance with Chapter 18 Section 3803

(c) and (e): We believe that we comply with these subsections of the regulation by submitting these rates before they are being used.

#### C. Demonstration of Compliance with Reg. 89.83

- 89.83 (a): This subsection requires no action.
- 89.83 (b): This subsection is not applicable since this filing is not for rates for a new policy form.
- 89.83 (c): Revision of Current Rates
- (1): For policies issued prior to September 16, 2002, the effective date of rate stability in Pennsylvania, the minimum loss ratio requirement is 60%, as specified in Reg. 89a.117.(b). For policies issued on or after September 16, 2002, the loss ratio requirements are specified in Reg. 89a.118.(c)(2), (i.e., the 58%/85% test). Demonstration of satisfaction of these requirements is discussed in Section 15 of the enclosed actuarial memorandum.

As of December 31, 2018, 106 of the 263 policies that are in force and subject to the requested rate increase in Pennsylvania for MedAmerica were issued on or after September 16, 2002 (approximately 40%). However, because the company manages this block of business as a whole, this rate increase filing complies with both sets of requirements for all of the policies, regardless of issue date.

- (2): Section 3 of the actuarial memorandum provides a description of benefits. Copies of the affected policy forms may be provided upon request.
- (2)(i): The primary reason why these forms are in need of a premium rate increase is due to emerging experience running more adverse than expected in pricing.

This rate increase request is a follow-up to two prior nationwide requests. However, because this jurisdiction did not allow full implementation of the prior requested increases, the rate level being requested in this follow-up filing was determined to be actuarially equivalent as described in Appendix B to the enclosed actuarial memorandum. The company is seeking this current rate increase request to help alleviate the adverse performance on this block of business. The cumulative rate increase levels were determined to vary by benefit period to better align the rate increase with the adverse experience. The table in Section 2 of the enclosed actuarial memorandum provides the average prior, requested, and cumulative increase by benefit period based on the nationwide distribution. The enclosed cover letter provides similar information on a Pennsylvania-specific distribution.

The current rate schedules along with the proposed rate schedules are enclosed with this filing. Please

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note that the actual rates implemented may vary slightly from those shown due to rounding algorithms.

Exhibit I of the actuarial memorandum provides nationwide earned premium and incurred claim actual and projected experience using current assumptions, as described in Section 6 of the actuarial memorandum. Attachment 1 to this supplement provides nationwide written premium and paid claim actual and projected experience using current assumptions. Values in Exhibit I and Attachment 1 are shown both before and after the requested rate increase. The interest rate used in Exhibit I and Attachment 1 to accumulate and discount values is the maximum valuation interest rate for contract reserves applicable for the year of issue (which ranges from 3.5% to 5.5%, and averages 4.5%).

Attachments 2 and 3 to this supplement provide similar information as Exhibit I and Attachment 1 respectively, except provides Pennsylvania-specific experience.

(2)(ii)(A): There have been three rate increases approved and implemented on these policy forms in Pennsylvania. The cumulative prior approved increase is 100% and has been implemented on the individual and group policy forms. The most recent rate increase was filed for use by the Department on December 4, 2018.

(2)(ii)(B): Table 1a shows the original pricing commission scales by issue age and duration for lifetime-pay individual policies.

Table 1a Commission Percentages by Issue Age and Duration<sup>[1]</sup>

| Commission Percentages by issue Age and Duration.  |                     |                          |                        |                    |  |  |  |  |  |
|--|---------------------|--------------------------|------------------------|--------------------|--|--|--|--|--|
|  | Issue               | Commi                    | ssions by D            | uration            |  |  |  |  |  |
| Individual Policy Form   | Ages                | 1                        | 2-10                   | 11+                |  |  |  |  |  |
| LTC-LBP-2PA<br>LTC-LBP8-MA-PA<br>LTC-CD5-2PA<br>LTC-CD8-MA-PA  | <71<br>71-79<br>80+ | 45-78%<br>40-68<br>35-58 | 10-21%<br>8-18<br>5-15 | 0-5%<br>0-5<br>0-5 |  |  |  |  |  |
| LTC-CD9-MA-PA  | All Ages            | 30-50                    | 5-10                   | 5-10               |  |  |  |  |  |
| LTQ11-336-PA-998<br>NTQ11-337-PA-998<br>HTQ11-338-PA-998<br>LTQ11-336-MA-PA-998<br>NTQ11-337-MA-PA-998<br>HTQ11-338-MA-PA-998<br>LTQ11-336-MA-PA-601<br>HTQ11-338-MA-PA-601<br>NTQ11-337-MA-PA-601 | <75<br>75+          | 30-50<br>20-40           | 5-10<br>5-10           | 0-10<br>0-10       |  |  |  |  |  |
| FLQ11-336-PA-998<br>FLQ11-336-MA-PA-601  | <75<br>75+          | 25-45<br>15-35           | 0-5<br>0-5             | 0-5<br>0-5         |  |  |  |  |  |

<sup>[1]</sup> The maximum writing agent commissions are 50% in the first policy year and 10% for policy years two through ten.

Table 1b provides similar information for lifetime-pay group certificates by duration and whether the group was sold by a commissioned agent. The commission scale, without other sales and marketing expenses, was not readily available.

Table 1b
Commission Percentages by Duration and Agent Type
Group Policy Forms: GRP11-341-MA-PA-601 and GRP11-341-PA-200

|   | Group rolley rolling. | OK 11 0+1 MATA 001 0 | MATA COT GITC CITE TO STITE A 200 |  |  |  |  |
|---|-----------------------|----------------------|-----------------------------------|--|--|--|--|
| I | Duration              | Commissioned         | Non-Commissioned                  |  |  |  |  |
|   | 1                     | 30%                  | 40%                               |  |  |  |  |
|   | 2+                    | 7                    | 0                                 |  |  |  |  |

Commissions for limited-pay policies are reduced to levels that are approximately equivalent to the above commissions for lifetime-pay policies and certificates, on a present value basis, based on original

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pricing assumptions.

The actual commission scales will differ slightly from those that appear in Table 1 as the company adjusts renewal commission rates so that the total commissions paid before and after any increase in premium are similar (i.e., commissions are not paid on the increased premium).

(2)(ii)(C)(I): Premiums earned and written since inception for nationwide experience can be found in Exhibit I of the actuarial memorandum and Attachment 1 to this supplement, respectively. Premiums earned and written since inception for Pennsylvania-specific experience can be found in Attachments 2 and 3, respectively. Attachment 4 to this supplement provides reserve balances and the calculation basis for both nationwide and Pennsylvania-specific experience.

(2)(ii)(C)(II): Attachment 4 to this supplement provides a breakdown of historical incurred claims and active life reserve balance, including a description of the calculation basis, for both nationwide and Pennsylvania-specific experience.

Attachment 5 to this supplement provides actual and projected experience on a durational basis using current assumptions. Included are policy year earned premiums, incurred claims, durational loss ratios, end of year lives, and cumulative loss ratios with interest. Values in Attachment 5 are shown both before and after the requested rate increase. The number of durations shown was chosen to capture the majority of the durations underlying Exhibit I. Similar to Exhibit I and Attachments 1 through 3, the values used to calculate the cumulative loss ratios are accumulated and discounted at the maximum valuation interest rate.

Attachment 6 to this supplement provides similar information to Attachment 5 for Pennsylvania-specific experience.

(2)(ii)(D): We believe that we have provided information sufficient to support the rate increase requested in this filing.

(2)(iii): We understand that data used in this rate increase filing is in agreement with those used in the annual statement filed with the department.

89.83 (d): We believe the proposed rate tables provided with this filing comply with this subsection.

## D. Description of Attachments and Enclosures

An Excel workbook containing the values shown in Exhibits I and II of the actuarial memorandum and Attachments 1 through 6 of this supplement is enclosed with this filing, as required.

Attachment 1: Nationwide Actual and Projected Written Premium and Paid Claims

Attachment 2: Pennsylvania-Specific Actual and Projected Experience

Attachment 3: Pennsylvania-Specific Actual and Projected Written Premium and Paid Claims

Attachment 4: Nationwide and Pennsylvania-Specific Claims and Reserves Balance

Attachment 5: Nationwide Actual and Projected Experience by Policy Year

Attachment 6: Pennsylvania-Specific Actual and Projected Experience by Policy Year

Enclosure: Exhibits and Attachments in Excel

## Attachment 1-a MedAmerica and Affinity Partners Written Premium and Paid Claim Experience and Projections by Calendar Year Nationwide Experience Before Requested Rate Increase Series 11 and Prior Policy Forms

|              |                        | Loss Ratio Demonstration |                          |                    |                      |                          |                          |                   |
|--------------|------------------------|--------------------------|--------------------------|--------------------|----------------------|--------------------------|--------------------------|-------------------|
| ,            |                        |                          | Without Interest         | 0.5/4              |                      |                          | ith Max. Val. Inter      |                   |
|              |                        | Α                        | В                        | C = B / A          | D                    | E                        | F                        | G = F / E         |
|              | Colondar               | \\/ritta=                | Doid                     |                    | End of Voca          | \\/rittan                | Deid                     |                   |
|              | Calendar<br>Year       | Written<br>Premium       | Paid<br>Claims           | Loss Ratio         | End of Year<br>Lives | Written<br>Premium       | Paid<br>Claims           | Loss Ratio        |
| <del> </del> | 1992                   | 127,778                  | Ciairis 0                | LUSS RAIIO 0%      | 111                  | 528,014                  | Ciairis                  | 0%                |
|              | 1993                   | 820,223                  | 435                      | 0%                 | 634                  | 2,892,148                | 1,704                    | 0%                |
|              | 1994                   | 1,860,053                | 45,498                   | 2%                 | 1,376                | 6,186,565                |                          | 2%                |
|              | 1995                   | 2,807,204                | 63,694                   | 2%                 | 1,943                | 8,461,960                |                          | 2%                |
|              | 1996                   | 3,860,398                | 75,596                   | 2%                 | 2,631                | 10,841,396               | 222,763                  | 2%                |
|              | 1997                   | 4,389,921                | 67,538                   | 2%                 | 2,884                | 11,679,201               | 183,531                  | 2%                |
|              | 1998                   | 5,364,467                | 119,007                  | 2%                 | 3,447                | 13,542,968               | 293,855                  | 2%                |
|              | 1999                   | 6,974,010                | 465,964                  | 7%                 | 4,511                | 16,721,331               | 1,147,579                | 7%                |
|              | 2000                   | 9,116,370                | 970,921                  | 11%                | 5,902                | 20,807,941               | 2,284,255                | 11%               |
|              | 2001                   | 12,304,751               | 1,099,511                | 9%                 | 8,144                | 26,766,424               | 2,473,974                | 9%                |
| Historical   | 2002<br>2003           | 16,753,833               | 1,409,215<br>2,447,610   | 8%<br>11%          | 11,144<br>17,381     | 34,790,343<br>45,353,474 | 3,015,109<br>4,965,502   | 9%<br>11%         |
| Experience   | 2003                   | 22,861,236<br>27,076,694 | 2,961,056                | 11%                | 18,793               | 51,352,517               | 5,685,432                | 11%               |
| Lxperience   | 2005                   | 28,194,082               | 4,173,584                | 15%                | 19,928               | 51,151,960               |                          | 15%               |
|              | 2006                   | 28,224,166               | 5,080,854                | 18%                | 19,787               | 48,919,589               | 8,864,030                | 18%               |
|              | 2007                   | 27,867,712               | 6,524,442                | 23%                | 19,852               | 46,164,208               | 10,882,302               | 24%               |
|              | 2008                   | 27,181,390               | 8,229,180                | 30%                | 19,654               | 43,055,810               | 13,122,401               | 30%               |
|              | 2009                   | 26,260,881               | 8,193,848                | 31%                | 19,200               | 39,794,144               | 12,490,954               | 31%               |
|              | 2010                   | 24,818,211               | 9,020,531                | 36%                | 18,231               | 35,982,914               | 13,150,630               | 37%               |
|              | 2011                   | 24,333,772               | 11,119,523               | 46%                | 17,415               | 33,762,341               | 15,503,281               | 46%               |
|              | 2012                   | 24,926,454               | 12,962,544               | 52%                | 17,350               | 33,084,474               | 17,284,350               | 52%               |
|              | 2013                   | 23,349,718               | 15,145,324               | 65%                | 17,027               | 29,653,540               |                          | 65%               |
|              | 2014                   | 21,831,062               | 17,042,823               | 78%                | 16,579               | 26,532,111               | 20,785,577               | 78%               |
|              | 2015<br>2016           | 21,109,970<br>20,713,370 | 19,884,954<br>20.495.043 | 94%<br>99%         | 15,985<br>15,787     | 24,558,913<br>23,067,887 | 23,203,645<br>22,882,053 | 94%<br>99%        |
|              | 2017                   | 19,849,697               | 22,045,813               | 111%               | 14,983               | 21,172,900               |                          | 111%              |
|              | 2018                   | 19,401,093               | 23,700,530               | 122%               | 14,061               | 19,823,580               | 24,226,943               | 122%              |
|              | 2019                   | 19,528,687               | 24,421,664               | 125%               | 13,223               | 19,112,488               |                          | 125%              |
|              | 2020                   | 20,077,894               | 23,240,437               | 116%               | 12,791               | 18,823,912               |                          | 116%              |
|              | 2021                   | 19,811,910               | 25,414,033               | 128%               | 12,374               | 17,793,400               | 22,772,536               | 128%              |
|              | 2022                   | 18,954,715               | 24,600,757               | 130%               | 11,953               | 16,308,937               | 21,098,433               | 129%              |
|              | 2023                   | 17,600,131               | 26,419,277               | 150%               | 11,530               | 14,510,777               |                          | 149%              |
|              | 2024                   | 16,504,273               | 28,115,328               | 170%               | 11,105               | 13,039,771               | 22,092,328               | 169%              |
|              | 2025                   | 15,480,769               | 29,752,161               | 192%               | 10,677               | 11,722,299<br>10,568,592 | 22,379,542               | 191%              |
|              | 2026<br>2027           | 14,561,918<br>13,612,117 | 31,431,403<br>33,171,917 | 216%<br>244%       | 10,249<br>9,820      | 9,468,364                | 22,633,546<br>22,868,373 | 214%<br>242%      |
|              | 2028                   | 12,726,546               | 34,965,560               | 275%               | 9,391                | 8,485,730                | 23,078,085               | 272%              |
|              | 2029                   | 11,888,563               | 36,801,695               | 310%               | 8,961                | 7,600,140                | 23,256,428               | 306%              |
| Projected    | 2030                   | 11,074,471               | 38,715,122               | 350%               | 8,529                | 6,788,891                | 23,425,874               | 345%              |
| Future       | 2031                   | 10,280,786               | 40,680,993               | 396%               | 8,098                | 6,044,421                | 23,570,921               | 390%              |
| Experience   | 2032                   | 9,509,480                | 42,653,522               | 449%               | 7,668                | 5,363,050                | 23,667,115               | 441%              |
| (60 Years)   | 2033                   | 8,763,718                | 44,590,357               | 509%               | 7,240                | 4,741,899                | 23,696,226               | 500%              |
|              | 2034                   | 8,044,995                | 46,451,976               | 577%               | 6,816                | 4,177,191                | 23,644,873               | 566%              |
|              | 2035                   | 7,355,167                | 48,206,595               | 655%               | 6,397                | 3,665,533                | 23,506,192               | 641%              |
|              | 2036                   | 6,695,601                | 49,799,651               | 744%               | 5,984                | 3,203,448                | 23,264,596               | 726%              |
|              | 2037                   | 6,067,784                | 51,191,569               | 844%               | 5,580                | 2,787,689                | 22,914,741               | 822%              |
|              | 2038                   | 5,473,642                | 52,340,035               | 956%<br>1.083%     | 5,186<br>4,803       | 2,415,373                | 22,452,047               | 930%              |
|              | 2039<br>2040           | 4,914,271<br>4,390,218   | 53,209,679<br>53,765,987 | 1,083%<br>1,225%   | 4,803<br>4,433       | 2,083,396<br>1,788,630   |                          | 1,050%<br>1,185%  |
|              | 2040                   | 3,902,164                | 53,765,967               | 1,383%             | 4,433                | 1,528,203                | 20,396,533               | 1,335%            |
|              | 2042                   | 3,450,634                | 53,834,586               | 1,560%             | 3,739                | 1,299,380                | 19,504,364               | 1,501%            |
|              | 2043                   | 3,035,809                | 53,322,910               | 1,756%             | 3,417                | 1,099,497                | 18,527,187               | 1,685%            |
|              | 2044                   | 2,657,113                | 52,475,082               | 1,975%             | 3,113                | 925,832                  |                          | 1,889%            |
|              | 2045                   | 2,313,709                | 51,316,604               | 2,218%             | 2,827                | 775,805                  |                          | 2,115%            |
|              | 2046                   | 2,004,461                | 49,878,882               | 2,488%             | 2,560                | 646,960                  | 15,297,790               | 2,365%            |
|              | 2047                   | 1,727,948                | 48,178,671               | 2,788%             | 2,313                | 536,979                  | 14,177,989               | 2,640%            |
|              | 2048                   | 1,482,485                | 46,249,003               | 3,120%             | 2,084                | 443,678                  | 13,060,432               | 2,944%            |
|              | 2049-2053              | 4,670,504                | 196,724,866              | 4,212%             | 7,616                | 1,267,350                | 49,448,439               | 3,902%            |
| 1            | 2054-2058              | 1,939,223                | 134,686,083              | 6,945%             | 4,321                | 438,785                  |                          | 6,307%            |
|              | 2059-2063<br>2064-2068 | 743,203                  | 80,759,946<br>43,467,975 | 10,866%<br>16,460% | 2,358                | 140,992                  |                          | 9,666%<br>14,313% |
|              | 2064-2068              | 264,083<br>87,167        | 20,910,758               | 23,989%            | 1,183<br>504         | 42,421<br>12,001         | 6,071,806<br>2,446,130   | 20,382%           |
|              | 2074-2078              | 27,174                   | 9,028,238                | 33,223%            | 165                  | 3,239                    | 899,992                  | 27,784%           |
|              | _37 1 2070             | 21,114                   | 3,020,200                | 00,22070           | 103                  | 3,239                    | 033,332                  | 21,104/0          |
| Histor       | ry                     | 452,378,514              | 193,345,039              | 43%                | 324,740              | 726,648,653              | 253,518,823              | 35%               |
| Futur        |                        | 291,623,334              | 1,734,755,070            | 595%               | 233,084              | 199,655,053              |                          | 369%              |
| Lifetim      | ne                     | 744,001,848              | 1,928,100,109            | 259%               | 557,824              | 926,303,706              | 989,272,843              | 107%              |

# Attachment 1-b MedAmerica and Affinity Partners Written Premium and Paid Claim Experience and Projections by Calendar Year Nationwide Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|              |                  | Loss Ratio Demonstration   |                              |                  |                      |                            |                            |              |
|--------------|------------------|----------------------------|------------------------------|------------------|----------------------|----------------------------|----------------------------|--------------|
|              |                  |                            | Without Interest             |                  | _                    |                            | ith Max. Val. Inter        |              |
|              |                  | Α                          | В                            | C = B / A        | D                    | E                          | F                          | G = F / E    |
|              | Colordor         | \\/ritta=                  | Doid                         |                  | End of Voca          | \\/rittan                  | Deid                       |              |
|              | Calendar<br>Year | Written<br>Premium         | Paid<br>Claims               | Loss Ratio       | End of Year<br>Lives | Written<br>Premium         | Paid<br>Claims             | Loss Ratio   |
|              | 1992             | 127,778                    | Ciairis 0                    | 0%               | 111                  | 528,014                    | Ciairis                    | LUSS RAIIU   |
|              | 1993             | 820,223                    | 435                          | 0%               | 634                  | 2,892,148                  | 1,704                      | 0%           |
|              | 1994             | 1,860,053                  | 45,498                       | 2%               | 1,376                | 6,186,565                  |                            | 2%           |
|              | 1995             | 2,807,204                  | 63,694                       | 2%               | 1,943                | 8,461,960                  |                            | 2%           |
|              | 1996             | 3,860,398                  | 75,596                       | 2%               | 2,631                | 10,841,396                 | 222,763                    | 2%           |
|              | 1997             | 4,389,921                  | 67,538                       | 2%               | 2,884                | 11,679,201                 | 183,531                    | 2%           |
|              | 1998             | 5,364,467                  | 119,007                      | 2%               | 3,447                | 13,542,968                 | 293,855                    | 2%           |
|              | 1999             | 6,974,010                  | 465,964                      | 7%               | 4,511                | 16,721,331                 | 1,147,579                  | 7%           |
|              | 2000             | 9,116,370                  | 970,921                      | 11%              | 5,902                | 20,807,941                 | 2,284,255                  | 11%          |
|              | 2001             | 12,304,751                 | 1,099,511                    | 9%<br>8%         | 8,144                | 26,766,424                 | 2,473,974                  | 9%<br>9%     |
| Historical   | 2002<br>2003     | 16,753,833<br>22,861,236   | 1,409,215<br>2,447,610       | 11%              | 11,144<br>17,381     | 34,790,343<br>45,353,474   | 3,015,109<br>4,965,502     | 9%<br>11%    |
| Experience   | 2003             | 27,076,694                 | 2,961,056                    | 11%              | 18,793               | 51,352,517                 | 5,685,432                  | 11%          |
| Experience   | 2005             | 28,194,082                 | 4,173,584                    | 15%              | 19,928               | 51,151,960                 |                            | 15%          |
|              | 2006             | 28,224,166                 | 5,080,854                    | 18%              | 19,787               | 48,919,589                 | 8,864,030                  | 18%          |
|              | 2007             | 27,867,712                 | 6,524,442                    | 23%              | 19,852               | 46,164,208                 | 10,882,302                 | 24%          |
|              | 2008             | 27,181,390                 | 8,229,180                    | 30%              | 19,654               | 43,055,810                 | 13,122,401                 | 30%          |
|              | 2009             | 26,260,881                 | 8,193,848                    | 31%              | 19,200               | 39,794,144                 | 12,490,954                 | 31%          |
|              | 2010             | 24,818,211                 | 9,020,531                    | 36%              | 18,231               | 35,982,914                 | 13,150,630                 | 37%          |
|              | 2011             | 24,333,772                 | 11,119,523                   | 46%              | 17,415               | 33,762,341                 | 15,503,281                 | 46%          |
|              | 2012             | 24,926,454                 | 12,962,544                   | 52%              | 17,350               | 33,084,474                 | 17,284,350                 | 52%          |
|              | 2013             | 23,349,718                 | 15,145,324                   | 65%              | 17,027               | 29,653,540                 | 19,317,615                 | 65%          |
|              | 2014             | 21,831,062                 | 17,042,823                   | 78%              | 16,579               | 26,532,111                 | 20,785,577                 | 78%          |
|              | 2015             | 21,109,970                 | 19,884,954                   | 94%<br>99%       | 15,985               | 24,558,913                 | 23,203,645                 | 94%          |
|              | 2016<br>2017     | 20,713,370<br>19,849,697   | 20,495,043<br>22,045,813     | 111%             | 15,787<br>14,983     | 23,067,887<br>21,172,900   | 22,882,053<br>23,551,277   | 99%<br>111%  |
|              | 2017             | 19,401,093                 | 23,700,530                   | 122%             | 14,963               | 19,823,580                 | 24,226,943                 | 122%         |
|              | 2019             | 19,529,713                 | 24,421,664                   | 125%             | 13.223               | 19,113,492                 |                            | 125%         |
|              | 2020             | 22,377,837                 | 23,199,234                   | 104%             | 12,481               | 20,978,581                 | 21,720,319                 | 104%         |
|              | 2021             | 27,377,705                 | 25,064,780                   | 92%              | 11,712               | 24,585,682                 |                            | 91%          |
|              | 2022             | 27,711,554                 | 23,885,634                   | 86%              | 11,247               | 23,837,570                 | 20,484,911                 | 86%          |
|              | 2023             | 25,978,086                 | 25,303,746                   | 97%              | 10,850               | 21,410,010                 | 20,771,352                 | 97%          |
|              | 2024             | 24,333,078                 | 26,635,837                   | 109%             | 10,456               | 19,215,929                 | 20,929,232                 | 109%         |
|              | 2025             | 22,806,367                 | 27,945,605                   | 123%             | 10,059               | 17,259,138                 | 21,019,976                 | 122%         |
|              | 2026             | 21,427,098                 | 29,329,643                   | 137%             | 9,662                | 15,540,157                 | 21,119,305                 | 136%         |
|              | 2027             | 19,996,297                 | 30,803,306                   | 154%             | 9,263                | 13,897,435                 |                            | 153%         |
|              | 2028<br>2029     | 18,664,959<br>17,407,669   | 32,355,767<br>33,969,194     | 173%<br>195%     | 8,864<br>8,464       | 12,433,211<br>11,116,094   | 21,354,606                 | 172%<br>193% |
| Projected    | 2030             | 16,188,033                 | 35,671,561                   | 220%             | 8,062                | 9,911,262                  | 21,465,407<br>21,583,104   | 218%         |
| Future       | 2031             | 15,000,871                 | 37,436,772                   | 250%             | 7,660                | 8,807,262                  |                            | 246%         |
| Experience   | 2032             | 13,849,464                 | 39,220,460                   | 283%             | 7,259                | 7,798,626                  | , ,                        | 279%         |
| (60 Years)   | 2033             | 12,738,806                 | 40,982,331                   | 322%             | 6,859                | 6,881,037                  | 21,777,267                 | 316%         |
| ,            | 2034             | 11,671,210                 | 42,684,823                   | 366%             | 6,462                | 6,048,723                  | 21,725,561                 | 359%         |
|              | 2035             | 10,649,451                 | 44,297,466                   | 416%             | 6,070                | 5,296,458                  | 21,598,063                 | 408%         |
|              | 2036             | 9,675,429                  | 45,769,261                   | 473%             | 5,683                | 4,618,841                  | 21,379,504                 | 463%         |
|              | 2037             | 8,750,988                  | 47,062,478                   | 538%             | 5,304                | 4,010,731                  | 21,063,921                 | 525%         |
|              | 2038             | 7,878,696                  | 48,137,008                   | 611%             | 4,933                | 3,467,595                  | 20,646,246                 | 595%         |
|              | 2039             | 7,059,865                  | 48,958,917                   | 693%             | 4,573                | 2,984,599                  | 20,125,659                 | 674%         |
|              | 2040             | 6,294,897                  | 49,494,894                   | 786%             | 4,225                | 2,556,862                  |                            | 763%         |
|              | 2041<br>2042     | 5,584,449<br>4,928,909     | 49,718,884                   | 890%             | 3,890                | 2,179,938                  | 18,781,701<br>17,968,673   | 862%<br>971% |
|              | 2042             | 4,328,208                  | 49,608,826<br>49,163,329     | 1,006%<br>1,136% | 3,570<br>3,265       | 1,849,598<br>1,561,766     | 17,968,673                 | 1,093%       |
|              | 2043             | 3,781,179                  | 48,408,273                   | 1,280%           | 2,977                | 1,312,304                  | 16,126,557                 | 1,229%       |
|              | 2045             | 3,286,363                  | 47,366,173                   | 1,441%           | 2,707                | 1,097,332                  |                            | 1,379%       |
|              | 2046             | 2,841,854                  | 46,064,386                   | 1,621%           | 2,454                | 913,168                    | 14,121,049                 | 1,546%       |
|              | 2047             | 2,445,310                  | 44,516,276                   | 1,820%           | 2,219                | 756,341                    | 13,093,009                 | 1,731%       |
|              | 2048             | 2,094,084                  | 42,751,803                   | 2,042%           | 2,002                | 623,608                    | 12,065,377                 | 1,935%       |
|              | 2049-2053        | 6,564,650                  | 182,025,176                  | 2,773%           | 7,336                | 1,771,336                  |                            | 2,581%       |
|              | 2054-2058        | 2,696,669                  | 124,792,505                  | 4,628%           | 4,186                | 605,708                    | 25,617,857                 | 4,229%       |
|              | 2059-2063        | 1,017,239                  | 74,926,836                   | 7,366%           | 2,296                | 191,287                    | 12,632,522                 | 6,604%       |
|              | 2064-2068        | 354,090                    | 40,465,506                   | 11,428%          | 1,156                | 56,373                     | 5,646,759                  | 10,017%      |
|              | 2069-2073        | 114,832                    | 19,559,428                   | 17,033%          | 493                  | 15,690                     |                            | 14,560%      |
|              | 2074-2078        | 35,584                     | 8,469,068                    | 23,800%          | 161                  | 4,214                      | 842,128                    | 19,984%      |
| ⊔i∽ŧ         | ony              | AEO 270 E4 A               | 103 345 030                  | 43%              | 324,740              | 726 640 6F2                | 252 540 022                | 35%          |
| Hist<br>Futı | •                | 452,378,514<br>407,441,492 | 193,345,039<br>1,610,466,850 | 395%             | 324,740<br>222,083   | 726,648,653<br>274,707,954 | 253,518,823<br>686,411,599 | 250%         |
| Lifeti       |                  | 859,820,006                | 1,803,811,889                | 210%             | 546,823              | 1,001,356,608              | 939,930,422                | 94%          |
| Liieli       |                  | 553,520,000                | 1,000,011,009                | 21070            | J+U,UZJ              | 1,001,000,000              | JJJ,JJU,422                | 547          |

Attachment 2-a
MedAmerica and Affinity Partners
Actual and Projected Experience using Current Assumptions by Calendar Year
Pennsylvania-Specific Experience Before Requested Rate Increase
Series 11 and Prior Policy Forms

|                |                        | Loss Ratio Demonstration |                          |                  |                 |                         |                          |                   |
|----------------|------------------------|--------------------------|--------------------------|------------------|-----------------|-------------------------|--------------------------|-------------------|
|                |                        |                          | Vithout Interest         | O = D / A        | Б.              |                         | th Max. Val. Intere      |                   |
|                |                        | Α                        | В                        | C = B / A        | D               | E                       | F                        | G = F / E         |
|                | Calendar               | Earned                   | Incurred                 | Incurred         | End of Year     | Earned                  | Incurred                 | Incurred          |
|                | Year                   | Premium                  | Claims                   | Loss Ratio       | Lives           | Premium                 | Claims                   | Loss Ratio        |
|                | 1992                   | 17,324                   | 0                        | 0%               | 111             | 71,586                  | 0                        | 0%                |
|                | 1993                   | 547,119                  | 112,031                  | 20%              | 580             | 1,964,618               | 390,130                  | 20%               |
|                | 1994                   | 1,333,538                | 28,415                   | 2%               | 1,190           | 4,448,749               | 93,904                   | 2%                |
|                | 1995                   | 1,802,548                | 55,039                   | 3%               | 1,165           | 5,625,311               | 173,228                  | 3%                |
|                | 1996                   | 1,608,703                | 5,871                    | 0%               | 1,055           | 4,748,422               | 17,599                   | 0%                |
|                | 1997                   | 1,439,865                | 114,890                  | 8%               | 953             | 4,045,710               | 327,984                  | 8%                |
|                | 1998                   | 1,347,126                | 235,553                  | 17%              | 912             | 3,606,337               | 647,151                  | 18%               |
|                | 1999                   | 1,286,732                | 377,829                  | 29%              | 872             | 3,277,009               | 963,438                  | 29%               |
|                | 2000                   | 1,267,260                | 481,212                  | 38%              | 859             | 3,064,161               | 1,177,031                | 38%               |
|                | 2001                   | 1,235,696                | 713,556                  | 58%              | 895             | 2,838,559               | 1,625,076                | 57%<br>53%        |
| Historical     | 2002<br>2003           | 1,431,381<br>1,554,846   | 745,816<br>464,534       | 52%<br>30%       | 1,036<br>1,078  | 3,097,925<br>3,191,638  | 1,652,554<br>973,026     | 30%               |
| Experience     | 2004                   | 1,652,124                | 958,964                  | 58%              | 1,139           | 3,221,077               | 1,853,988                | 58%               |
| Experience     | 2005                   | 1,597,784                | 656,165                  | 41%              | 1,089           | 2,969,432               | 1,257,626                | 42%               |
|                | 2006                   | 1,498,700                | 751,072                  | 50%              | 1,021           | 2,658,309               | 1,353,897                | 51%               |
|                | 2007                   | 1,403,330                | 940,403                  | 67%              | 983             | 2,375,585               | 1,626,310                | 68%               |
|                | 2008                   | 1,324,472                | 815.074                  | 62%              | 906             | 2,140,929               | 1,331,566                | 62%               |
|                | 2009                   | 1,241,850                | 777,589                  | 63%              | 858             | 1,917,009               | 1,223,373                | 64%               |
|                | 2010                   | 1,132,473                | 817,263                  | 72%              | 720             | 1,668,206               | 1,236,321                | 74%               |
|                | 2011                   | 1,041,535                | 1,478,296                | 142%             | 664             | 1,463,678               | 2,101,336                | 144%              |
|                | 2012                   | 1,071,361                | 1,289,377                | 120%             | 605             | 1,438,423               | 1,741,098                | 121%              |
|                | 2013                   | 1,063,820                | 974,481                  | 92%              | 553             | 1,364,684               | 1,268,109                | 93%               |
|                | 2014                   | 996,939                  | 1,541,550                | 155%             | 516             | 1,221,778               | 1,895,619                | 155%              |
|                | 2015                   | 911,937                  | 2,274,579                | 249%             | 472             | 1,067,859               | 2,654,582                | 249%              |
|                | 2016                   | 835,842                  | 454,863                  | 54%              | 440             | 935,274                 | 510,184                  | 55%               |
|                | 2017                   | 774,903                  | 1,455,496                | 188%             | 408             | 828,771                 | 1,559,288                | 188%              |
|                | 2018                   | 741,932                  | 520,614                  | 70%              | 366             | 758,712                 | 532,890                  | 70%               |
|                | 2019<br>2020           | 792,713                  | 872,369<br>863,021       | 110%             | 339             | 775,209                 | 852,776                  | 110%<br>105%      |
|                | 2021                   | 824,116<br>772,016       | 868,006                  | 105%<br>112%     | 320<br>302      | 770,809<br>690,717      | 806,362<br>775,433       | 112%              |
|                | 2022                   | 717,452                  | 882,917                  | 123%             | 286             | 614,090                 | 754,348                  | 123%              |
|                | 2023                   | 659,363                  | 896,733                  | 136%             | 270             | 539,966                 | 732,900                  | 136%              |
|                | 2024                   | 570,064                  | 918,101                  | 161%             | 255             | 446,641                 | 717,899                  | 161%              |
|                | 2025                   | 474,417                  | 943,584                  | 199%             | 241             | 355,616                 | 705,939                  | 199%              |
|                | 2026                   | 436,976                  | 978,344                  | 224%             | 227             | 313,461                 | 700,417                  | 223%              |
|                | 2027                   | 399,384                  | 1,016,242                | 254%             | 214             | 274,080                 | 696,210                  | 254%              |
|                | 2028                   | 366,157                  | 1,057,483                | 289%             | 201             | 240,434                 | 693,346                  | 288%              |
|                | 2029                   | 336,019                  | 1,112,585                | 331%             | 189             | 211,156                 | 698,165                  | 331%              |
| Projected      | 2030                   | 307,518                  | 1,169,245                | 380%             | 178             | 184,938                 | 702,243                  | 380%              |
| Future         | 2031                   | 280,524                  | 1,218,791                | 434%             | 166             | 161,453                 | 700,561                  | 434%              |
| Experience     | 2032                   | 254,935                  | 1,261,027                | 495%             | 155             | 140,420                 | 693,782                  | 494%              |
| (60 Years)     | 2033                   | 230,690                  | 1,303,467                | 565%             | 145             | 121,607                 | 686,344                  | 564%              |
|                | 2034<br>2035           | 207,772                  | 1,332,322                | 641%<br>734%     | 135<br>125      | 104,821<br>89,897       | 671,514                  | 641%<br>733%      |
|                | 2036                   | 186,186<br>165,905       | 1,366,666<br>1,382,265   | 833%             | 115             | 76,666                  | 659,339<br>638,308       | 833%              |
|                | 2037                   | 146,943                  | 1,380,982                | 940%             | 106             | 64,989                  | 610,488                  | 939%              |
|                | 2038                   | 129,315                  | 1,364,125                | 1,055%           | 97              | 54,738                  | 577,319                  | 1,055%            |
|                | 2039                   | 113,036                  | 1,326,467                | 1,173%           | 89              | 45,794                  | 537,417                  | 1,174%            |
|                | 2040                   | 98,122                   | 1,271,448                | 1,296%           | 81              | 38,046                  | 493,167                  | 1,296%            |
|                | 2041                   | 84,533                   | 1,201,383                | 1,421%           | 73              | 31,370                  | 446,131                  | 1,422%            |
|                | 2042                   | 72,246                   | 1,128,895                | 1,563%           | 66              | 25,660                  | 401,354                  | 1,564%            |
|                | 2043                   | 61,243                   | 1,058,993                | 1,729%           | 60              | 20,818                  | 360,479                  | 1,732%            |
|                | 2044                   | 51,479                   | 994,916                  | 1,933%           | 53              | 16,748                  | 324,251                  | 1,936%            |
|                | 2045                   | 42,887                   | 924,564                  | 2,156%           | 47              | 13,353                  | 288,472                  | 2,160%            |
|                | 2046                   | 35,406                   | 855,816                  | 2,417%           | 42              | 10,550                  | 255,635                  | 2,423%            |
|                | 2047                   | 28,964                   | 785,668                  | 2,713%           | 37              | 8,259                   | 224,668                  | 2,720%            |
|                | 2048                   | 23,475                   | 717,949                  | 3,058%           | 32              | 6,406                   | 196,536                  | 3,068%            |
|                | 2049-2053<br>2054-2058 | 62,019<br>16,595         | 2,530,429<br>1,051,174   | 4,080%<br>6,334% | 105<br>42       | 15,170<br>3,271         | 615,738<br>206,935       | 4,059%<br>6,326%  |
|                | 2054-2058              | 3,294                    | 299,687                  | 9,099%           | 13              | 3,271<br>524            | 206,935<br>47,541        | 6,326%<br>9,076%  |
|                | 2064-2068              | 450                      | 57,859                   | 12,858%          | 3               | 58                      | 7,406                    | 9,076%<br>12,822% |
|                | 2069-2073              | 36                       | 6,549                    | 18,293%          | 0               | 4                       | 678                      | 18,188%           |
|                | 2074-2078              | 1                        | 372                      | 29,754%          | 0               | 0                       | 31                       | 29,607%           |
| 1              | 20 20.0                | <u> </u>                 | 072                      | 20,70770         |                 |                         |                          | 20,00770          |
| Hist           | tory                   | 32,161,140               | 19,040,533               | 59%              | 21,446          | 66,009,753              | 30,187,308               | 46%               |
|                |                        | 0.050.054                | 00 400 440               | 4070/            | 4 000           | 0.407.707               | 40 400 404               | 0000/             |
| Futu<br>Lifeti |                        | 8,952,251<br>41,113,391  | 36,400,442<br>55,440,975 | 407%<br>135%     | 4,808<br>26,254 | 6,467,737<br>72,477,491 | 18,480,134<br>48,667,442 | 286%<br>67%       |

# Attachment 2-b MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Calendar Year Pennsylvania-Specific Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|              |              |                    |                    | Los        | s Ratio Demonsti |                    |                      |            |
|--------------|--------------|--------------------|--------------------|------------|------------------|--------------------|----------------------|------------|
|              |              |                    | Without Interest   |            |                  |                    | ith Max. Val. Intere |            |
|              |              | Α                  | В                  | C = B / A  | D                | E                  | F                    | G = F / E  |
|              | Calendar     | Earned             | Incurred           | Incurred   | End of Year      | Earned             | Incurred             | Incurred   |
|              | Year         | Premium            | Claims             | Loss Ratio | Lives            | Premium            | Claims               | Loss Ratio |
|              | 1992         | 17,324             | Ciairis            | 0%         | 111              | 71,586             | Ciairiis 0           | LUSS RAIIO |
|              | 1993         | 547,119            | 112,031            | 20%        | 580              | 1,964,618          | 390.130              | 209        |
|              | 1994         | 1,333,538          | 28,415             | 2%         | 1,190            | 4,448,749          | 93,904               | 29         |
|              | 1995         | 1,802,548          | 55,039             | 3%         | 1,165            | 5,625,311          | 173,228              | 39         |
|              | 1996         | 1,608,703          | 5,871              | 0%         | 1,055            | 4,748,422          | 17,599               | 09         |
|              | 1997         | 1,439,865          | 114,890            | 8%         | 953              | 4,045,710          | 327,984              | 89         |
|              | 1998         | 1,347,126          | 235,553            | 17%        | 912              | 3,606,337          | 647,151              | 189        |
|              | 1999         | 1,286,732          | 377.829            | 29%        | 872              | 3,277,009          | 963,438              | 299        |
|              | 2000         | 1,267,260          | 481,212            | 38%        | 859              | 3,064,161          | 1,177,031            | 389        |
|              | 2001         | 1,235,696          | 713,556            | 58%        | 895              | 2,838,559          | 1,625,076            | 579        |
|              | 2002         | 1,431,381          | 745,816            | 52%        | 1,036            | 3,097,925          | 1,652,554            | 539        |
| Historical   | 2003         | 1,554,846          | 464,534            | 30%        | 1,078            | 3,191,638          | 973,026              | 309        |
| Experience   | 2004         | 1,652,124          | 958,964            | 58%        | 1,139            | 3,221,077          | 1,853,988            | 589        |
|              | 2005         | 1,597,784          | 656,165            | 41%        | 1,089            | 2,969,432          | 1,257,626            | 429        |
|              | 2006         | 1,498,700          | 751,072            | 50%        | 1,021            | 2,658,309          | 1,353,897            | 519        |
|              | 2007         | 1,403,330          | 940,403            | 67%        | 983              | 2,375,585          | 1,626,310            | 689        |
|              | 2008         | 1,324,472          | 815,074            | 62%        | 906              | 2,140,929          | 1,331,566            | 629        |
|              | 2009         | 1,241,850          | 777,589            | 63%        | 858              | 1,917,009          | 1,223,373            | 649        |
|              | 2010         | 1,132,473          | 817,263            | 72%        | 720              | 1,668,206          | 1,236,321            | 749        |
|              | 2011         | 1,041,535          | 1,478,296          | 142%       | 664              | 1,463,678          | 2,101,336            | 1449       |
|              | 2012         | 1,071,361          | 1,289,377          | 120%       | 605              | 1,438,423          | 1,741,098            | 1219       |
|              | 2013         | 1,063,820          | 974,481            | 92%        | 553              | 1,364,684          | 1,268,109            | 939        |
|              | 2014         | 996,939            | 1,541,550          | 155%       | 516              | 1,221,778          | 1,895,619            | 1559       |
|              | 2015         | 911,937            | 2,274,579          | 249%       | 472              | 1,067,859          | 2,654,582            | 2499       |
|              | 2016         | 835,842            | 454,863            | 54%        | 440              | 935,274            | 510,184              | 559        |
|              | 2017         | 774,903            | 1,455,496          | 188%       | 408              | 828,771            | 1,559,288            | 1889       |
|              | 2018         | 741,932            | 520,614            | 70%        | 366              | 758,712            | 532,890              | 709        |
|              | 2019         | 792,713            | 872,369            | 110%       | 339              | 775,209            | 852,776              | 1109       |
|              | 2020         | 871,806            | 855,397            | 98%        | 310              | 815,439            | 799,232              | 989        |
|              | 2021<br>2022 | 981,324            | 826,649            | 84%<br>90% | 286<br>270       | 878,061            | 738,476<br>713,584   | 849<br>909 |
|              | 2022         | 928,965<br>856,958 | 835,210<br>846,886 | 99%        | 270<br>256       | 795,196<br>701,846 | 692,155              | 99%        |
|              | 2023         | 746,841            | 865,375            | 116%       | 242              | 585,210            | 676,665              | 1169       |
|              | 2025         | 628,971            | 887,229            | 141%       | 228              | 471,533            | 663,768              | 1419       |
|              | 2026         | 582,169            | 917,671            | 158%       | 215              | 417,673            | 656,966              | 1579       |
|              | 2027         | 535,162            | 950,593            | 178%       | 203              | 367,322            | 651,216              | 1779       |
|              | 2028         | 493,438            | 985,956            | 200%       | 191              | 324,074            | 646,424              | 1999       |
|              | 2029         | 455,404            | 1,033,471          | 227%       | 180              | 286,235            | 648,487              | 2279       |
| Projected    | 2030         | 419,253            | 1,082,292          | 258%       | 169              | 252,186            | 649.979              | 2589       |
| Future       | 2031         | 384,794            | 1,124,330          | 292%       | 158              | 221,512            | 646,217              | 2929       |
| Experience   | 2032         | 351,876            | 1,159,358          | 329%       | 148              | 193.859            | 637,795              | 3299       |
| (60 Years)   | 2033         | 320,415            | 1,194,529          | 373%       | 138              | 168,943            | 628,926              | 3729       |
| ` '          | 2034         | 290,384            | 1,217,634          | 419%       | 128              | 146,533            | 613,655              | 4199       |
|              | 2035         | 261,800            | 1,245,767          | 476%       | 119              | 126,435            | 600,961              | 4759       |
|              | 2036         | 234,648            | 1,257,650          | 536%       | 110              | 108,457            | 580,717              | 5359       |
|              | 2037         | 208,975            | 1,255,132          | 601%       | 101              | 92,444             | 554,819              | 6009       |
|              | 2038         | 184,835            | 1,239,080          | 670%       | 93               | 78,255             | 524,377              | 6709       |
|              | 2039         | 162,284            | 1,205,104          | 743%       | 85               | 65,759             | 488,240              | 7429       |
|              | 2040         | 141,396            | 1,156,025          | 818%       | 78               | 54,835             | 448,404              | 8189       |
|              | 2041         | 122,165            | 1,094,161          | 896%       | 71               | 45,343             | 406,335              | 8969       |
|              | 2042         | 104,609            | 1,030,742          | 985%       | 64               | 37,159             | 366,489              | 9869       |
|              | 2043         | 88,752             | 970,778            | 1,094%     | 57               | 30,173             | 330,491              | 1,0959     |
|              | 2044         | 74,584             | 916,048            | 1,228%     | 52               | 24,267             | 298,592              | 1,2309     |
|              | 2045         | 62,048             | 855,718            | 1,379%     | 46               | 19,320             | 267,038              | 1,3829     |
|              | 2046         | 51,095             | 796,223            | 1,558%     | 41               | 15,226             | 237,880              | 1,5629     |
|              | 2047         | 41,652             | 734,322            | 1,763%     | 36               | 11,878             | 210,029              | 1,7689     |
|              | 2048         | 33,610             | 673,102            | 2,003%     | 31               | 9,172              | 184,300              | 2,009      |
|              | 2049-2053    | 87,560             | 2,384,251          | 2,723%     | 102              | 21,429             | 580,240              | 2,708      |
|              | 2054-2058    | 22,817             | 1,001,261          | 4,388%     | 41               | 4,499              | 197,119              | 4,3819     |
|              | 2059-2063    | 4,437              | 288,047            | 6,492%     | 13               | 706                | 45,694               | 6,473      |
|              | 2064-2068    | 587                | 56,137             | 9,567%     | 3                | 75                 | 7,185                | 9,535      |
|              | 2069-2073    | 44                 | 6,451              | 14,794%    | 0                | 5                  | 668                  | 14,6789    |
|              | 2074-2078    | 1                  | 371                | 26,158%    | 0                | 0                  | 31                   | 26,028     |
| Hist         |              | 32,161,140         | 19,040,533         | 59%        | 21,446           | 66,009,753         | 30,187,308           | 46         |
|              | uro          | 11,528,372         | 33,821,319         | 293%       | 4,606            | 8,146,268          | 17,245,929           | 212        |
| Fut<br>Lifet |              | 43,689,512         | 52,861,852         | 121%       | 26,052           | 74,156,021         | 47,433,237           | 64         |

# Attachment 3-a MedAmerica and Affinity Partners Written Premium and Paid Claim Experience and Projections by Calendar Year Pennsylvania-Specific Experience Before Requested Rate Increase Series 11 and Prior Policy Forms

| Calendar   Written   Paid   Cos Ratio    |            |           | Loss Ratio Demonstration              |                  |            |             |            |            |            |
|--|------------|-----------|---------------------------------------|------------------|------------|-------------|------------|------------|------------|
| Calendar   Written   Penilum   Claims   Loss Ratio   End of Year   Written   Lives   Department   Lives   Written   Claims   Loss Ratio   Claims   Loss Ratio   Claims   Loss Ratio   Claims   Loss Ratio   Claims   Clai |            |           |                                       | Without Interest | O = D / A  | Б           |            |            |            |
| Permium   Claims   Lose Ratio   Lives   Premium   Claims   Claim |            |           | A                                     | В                | C = B / A  | D           | E          | F          | G=F/E      |
| Permium   Claims   Lose Ratio   Lives   Premium   Claims   Claim |            | Calendar  | Written                               | Paid             |            | End of Year | Written    | Paid       |            |
| 1992   |            |           |                                       |                  | Loss Ratio |             |            |            | Loss Ratio |
| 1993   |            |           | 127,778                               | 0                | 0%         | 111         |            | 0          | 0%         |
| 1996   |            | 1993      |                                       | 435              | 0%         | 580         | 2,723,433  | 1,704      | 0%         |
| 1996   |            | 1994      | 1,646,826                             | 45,498           |            | 1,190       | 5,481,903  | 151,506    | 3%         |
| 1997   1,395,175   34,233   2%   953   3,919,656   97,726   22,200   1,998   1,891   1,991   1,891   1,991   1,891   1,991   1,891   1,991   |            |           | 1,722,034                             |                  |            |             |            |            | 4%         |
| 1998   |            |           |                                       |                  |            |             |            | ,          | 4%         |
| 1999   |            |           |                                       |                  |            |             | , ,        |            | 2%         |
| 2000   |            |           |                                       |                  |            |             | , ,        |            | 0%         |
| 2001   |            |           |                                       |                  |            |             |            |            |            |
| Historical 2003  |            |           |                                       | ,                |            |             |            |            |            |
| Historical 2003  |            |           |                                       | ,                |            |             |            |            | 42%        |
| Experience   2004  | Historical |           |                                       |                  |            |             |            |            | 49%        |
| 2005   |            |           |                                       |                  |            |             |            |            | 41%        |
| 2006   |            |           |                                       | ,                |            |             |            |            | 43%        |
| 2008   |            |           |                                       | ,                |            |             |            |            | 58%        |
| 2009   |            | 2007      | 1,384,149                             | 909,721          | 66%        | 983         | 2,342,450  | 1,557,986  | 67%        |
| 2010   |            | 2008      | 1,305,785                             | 953,070          | 73%        | 906         | 2,110,532  | 1,569,764  | 74%        |
| 2011 1,044,143 922,011 88% 664 1,467,006 1,317,398 9.00 2012 1,065,337 1,110,217 104% 605 1,430,477 1,511,244 1068 2013 1,052,019 1,400,952 133% 553 1,349,191 1,814,559 1344 2014 970,770 1,346,909 139% 516 1,189,655 1,661,167 1400 2015 882,638 1,276,318 145% 472 1,033,315 1,501,042 145% 2016 818,490 1,151,366 141% 440 915,718 1,200,368 1419 2017 757,550 1,067,878 141% 408 810,160 1,143,200 1419 2018 745,820 1,088,408 147% 366 762,675 1,123,511 1479 2019 812,133 943,655 116% 339 794,213 922,626 116% 2020 806,830 902,288 112% 330 784,213 922,626 116% 2021 752,328 964,716 128% 302 673,187 861,836 128% 2021 752,328 964,716 128% 302 673,187 861,836 128% 2022 663,421 904,626 130% 266 538,855 772,631 130% 2023 642,383 933,804 145% 270 526,134 762,610 1459 2024 456,039 989,016 210% 241 346,139 723,923 2109 2024 425,079 987,827 232% 227 346,922 730,492 730,013 2210 2026 460,359 989,016 210% 241 346,139 723,923 2109 2028 355,777 1,040,564 292% 201 23,864 80,953 2917 2029 326,255 1,074,221 329% 101 23,864 80,953 2917 2028 355,777 1,040,564 292% 201 23,864 80,953 2917 2029 326,255 1,013,370 373% 178 179,402 667,384 322 2031 271,778 1,156,058 292% 201 23,864 80,953 2917 2032 246,637 1,113,370 373% 178 179,402 667,384 322 2034 2030 298,271 1,133,370 373% 178 179,402 667,384 322 2035 179,217 1,36,492 740% 155 135,866 688,817 638,817 73,819 2033 123,419,419,419,419,419,419,419,419,419,419  |            | 2009      | 1,225,767                             | 769,442          |            | 858         | 1,891,874  | 1,208,555  | 64%        |
| 2012   |            | 2010      | 1,088,587                             |                  | 72%        | 720         | 1,601,919  | 1,171,564  | 73%        |
| 2013   |            |           |                                       |                  |            |             |            |            | 90%        |
| 2014   970,770   1,346,909   139%   516   1,189,855   1,681,167   1400   2016   818,490   1,151,366   141%   440   810,160   1,143,200   1418   2017   757,550   1,057,878   141%   440   810,160   1,143,200   1418   2018   745,820   1,098,408   147%   366   762,675   1,123,511   1,477   2019   812,133   943,555   1,161,836   141%   320   754,822   2021   752,228   902,288   112%   320   754,822   242,228   942,238   112%   320   754,822   242,238   112%   320   754,822   242,238   1228   2022   683,421   904,626   130%   266,533   2673,167   881,836   1288   2022   683,421   904,626   130%   270   526,134   762,610   1437   2025   400,359   969,016   210%   241   345,139   723,923   210   2026   425,079   967,627   232%   2026   425,079   967,627   232%   2027   367,011   1,011,720   261%   214   265,596   691,870   260,931   2028   355,777   1,040,664   292%   2010   233,654   680,953   2918   2029   326,235   1,074,221   329%   189   205,038   672,774   3288   2029   2030   228,271   1,113,70   373%   189   205,338   672,774   3288   2033   222,830   1,244,138   558%   145   117,477   659,996   577,744   3288   2039   107,927   1,040,644   987%   106   156,404   663,275   424   265,596   691,870   2030   298,271   1,113,70   373%   178   179,402   665,917   465   660   466,375   424   426,599   663,917   465   466,917   466,917   466   466,917   466   466,917   466   466,917   466,917   466,917   466   466,917   466,917   466,917   466,917   4 |            |           |                                       |                  |            |             |            |            | 106%       |
| 2015   |            |           |                                       |                  |            |             |            |            | 134%       |
| 2016   |            |           | · · · · · · · · · · · · · · · · · · · |                  |            |             |            |            | 140%       |
| Description  |            |           |                                       |                  |            |             | , ,        |            | 145%       |
| 2018   745,820   1,098,408   147%   366   762,675   1,123,511   147*   |            |           |                                       |                  |            |             | · ·        |            |            |
| 2019   812.133   943.655   116%   339   794.213   922.626   1168   2020   806.830   902.288   112%   320   754.892   843.238   1128   2022   693.421   904.626   130%   286   593.585   772.631   1300   2024   544.827   905.277   175%   255   426.921   744.535   1744   2024   2024   460.359   969.016   210%   241   345.139   723.923   2100   2026   425.079   987.827   232%   227   304.982   706.013   2319   2025   2028   355.777   1.040.564   292%   201   233.654   680.953   2018   2029   326.235   1.074.221   329%   189   205.038   672.774   3288   226.667   1.113.370   373%   178   179.402   667.384   3722   2031   271.778   1.156.058   425%   166   156.440   663.275   425.579   2033   222.830   1.244.138   558%   145   117.477   653.996   659.976   659. |            |           |                                       |                  |            |             |            |            |            |
| 2020   |            |           |                                       |                  |            |             | . ,        | , ,        |            |
| 2021   |            |           |                                       |                  |            |             |            |            |            |
| 2022   693,421   904,626   130%   286   593,585   772,631   1300   |            |           |                                       |                  |            |             |            |            |            |
| 2023   |            |           |                                       | ,                |            |             |            |            |            |
| 2024   2025   448,827   953,277   175%   255   426,921   744,535   1749   2026   460,359   969,016   210%   241   345,139   723,923   2109   2027   387,011   1,011,720   261%   214   265,596   691,870   2600   2028   355,777   1,040,564   292%   201   233,654   680,953   2911   2029   2029   326,235   1,074,221   329%   189   205,038   672,774   3289   2029   2030   288,271   1,113,370   373%   178   179,402   667,384   3722   246,637   1,199,839   486%   155   135,866   658,917   4853   (60 Years)   2031   221,244,138   558%   145   117,477   635,996   5573   2034   200,353   1,286,212   642%   135   101,089   647,183   6400   2036   159,383   1,362,402   855%   115   73,659   628,141   8539   2038   123,727   1,410,219   1,140%   97   52,378   595,818   1,138   2039   107,927   1,417,498   1,313%   89   43,728   573,328   1,3119   2041   80,314   13,384,571   1,730%   73   29,807   516,099   1,7287   2044   48,481   1,258,253   2,955%   53   15,773   409,287   2,958   2046   33,107   1,386,66   3,499%   42   9,865   339,499   3,4419   2048   2042   68,460   1,354,820   1,979%   66   24,317   408,820   1,977   2043   56,861   3,348,666   3,499%   42   9,865   339,499   3,4419   2049-2058   2044   48,481   1,258,253   2,955%   15   13,908   47,917   1,468,60   3,497%   47   12,533   373,954   2,964   2049-2058   2,799   882,645   31,642%   13   444   139,260   31,362   2064-2068   3,728   3,645   36,645   3,645   |            |           |                                       |                  |            |             | · ·        |            | 145%       |
| 2025   |            |           |                                       |                  |            |             | · ·        |            | 174%       |
| December   Color   |            |           |                                       |                  |            |             |            |            | 210%       |
| Decided   2029   |            | 2026      | 425,079                               | 987,827          | 232%       | 227         | 304,982    | 706,013    | 231%       |
| Projected 2030   298,271   |            |           | 387,011                               | 1,011,720        | 261%       | 214         | 265,596    | 691,870    | 260%       |
| Projected 2030 298,271 1,113,370 373% 178 179,402 667,384 372°   Experience 2032 246,637 1,199,839 486% 155 135,866 658,917 485°   (60 Years) 2033 222,830 1,244,138 558% 145 117,477 653,996 557°   2034 200,353 1,286,212 642% 135 101,089 647,183 640°   2035 179,217 1,326,492 740% 125 86,541 638,905 738°   2036 159,383 1,362,402 855% 115 73,659 628,141 853°   2037 140,882 1,391,064 987% 106 62,314 613,945 985°   2038 123,727 1,410,219 1,140% 97 52,378 595,818 1,138°   2039 107,927 1,417,498 1,313% 89 43,728 573,328 1,311°   2040 93,470 1,410,954 1,313% 89 43,728 573,328 1,311°   2041 80,314 1,389,571 1,730% 73 29,807 515,099 1,728°   2041 80,314 1,389,571 1,730% 73 29,807 515,099 1,728°   2043 57,867 1,309,849 2,264% 60 19,672 445,030 2,262°   2044 48,481 1,258,253 2,595% 53 15,773 409,287 2,595°   2045 40,251 1,200,787 2,983% 47 12,533 373,954 2,984°   2046 33,107 1,138,666 3,439% 42 9,865 339,499 3,441°   2048 2047 26,968 1,072,650 3,977% 37 7,691 306,187 3,981°   2048 2047 26,968 1,072,650 3,977% 37 7,691 306,187 3,981°   2048 21,770 1,003,722 4,611% 32 5,941 274,299 4,61°   2048 22,770 1,003,722 4,611% 32 5,941 274,299 4,61°   2049-2053 56,814 3,904,025 6,872% 105 13,903 945,717 6,802°   2054-2068 356 277,276 77,891% 3 46 35,261 77,066°   2064-2068 356 277,276 77,891% 3 46 35,261 77,066°   2064-2068 356 277,276 77,891% 3 46 35,261 77,066°   2064-2078 2074-2078 1 1,109,83 1,583,175% 0 0 0 966 15,547,404°   Future 8,702,809 42,010,382 483% 4,808 6,311,165 19,960,233 316°  |            |           |                                       | 1,040,564        |            |             |            |            | 291%       |
| Future   |            |           |                                       |                  |            |             | · ·        | ,          | 328%       |
| Experience (60 Years)  |            |           |                                       |                  |            |             | · ·        |            | 372%       |
| (60 Years)   |            |           |                                       | , ,              |            |             | · ·        |            | 424%       |
| 2034 200,353 1,286,212 642% 135 101,089 647,183 640° 2035 179,217 1,326,492 740% 125 86,541 638,905 738° 2036 159,383 1,362,402 855% 115 73,669 628,141 853° 2037 140,882 1,391,064 987% 106 62,314 613,945 985° 2038 123,727 1,410,219 1,140% 97 52,378 595,818 1,318° 2039 107,927 1,417,498 1,313% 89 43,728 573,328 1,311° 2040 93,470 1,410,954 1,510% 81 36,245 546,329 1,507° 2041 80,314 1,389,571 1,730% 73 29,807 515,099 1,728° 2042 68,460 1,354,820 1,979% 66 24,317 480,802 1,977° 2043 57,867 1,309,849 2,264% 60 19,672 445,030 2,262° 2044 48,481 1,258,253 2,595% 53 15,773 409,287 2,595° 2045 40,251 1,200,787 2,983% 47 12,533 373,954 2,984° 2046 33,107 1,138,666 3,439% 42 9,865 339,499 3,441° 2047 26,968 1,072,650 3,977% 37 7,691 306,187 3,981° 2048 21,770 1,003,722 4,611% 32 5,941 274,299 4,617° 2049-2053 56,814 3,904,025 6,872% 105 13,903 945,717 6,802° 2059-2063 2,789 882,645 31,642% 13 444 139,260 31,362° 2064-2068 356 277,276 77,891% 3 46 35,261 77,066° 2074-2078 1 11,698 1,583,175% 0 0 0 966 1,547,404° 408 Future 8,702,809 42,010,382 483% 4,808 6,311,165 19,960,233 316° 2074-2078 1 11,698 1,583,175% 0 0 0 966 1,547,404° 50 10 10 10 10 10 10 10 10 10 10 10 10 10  | •          |           |                                       |                  |            |             |            |            |            |
| 2035   | (60 Years) |           |                                       |                  |            |             |            |            |            |
| 2036   |            |           | · · · · · · · · · · · · · · · · · · · |                  |            |             | · ·        |            |            |
| 2037   |            |           |                                       | , ,              |            |             | · ·        |            |            |
| 2038   |            |           |                                       |                  |            |             |            |            |            |
| 2039   |            |           |                                       |                  |            |             |            |            |            |
| 2040   |            |           |                                       |                  |            |             |            |            |            |
| 2041   |            |           |                                       |                  |            |             |            |            |            |
| 2042   |            |           |                                       |                  |            |             |            |            | 1,728%     |
| 2043         57,867         1,309,849         2,264%         60         19,672         445,030         2,2629           2044         48,481         1,258,253         2,595%         53         15,773         409,287         2,5959           2045         40,251         1,200,787         2,983%         47         12,533         373,954         2,9849           2046         33,107         1,138,666         3,439%         42         9,865         339,499         3,4419           2047         26,968         1,072,650         3,977%         37         7,691         306,187         3,9819           2048         21,770         1,003,722         4,611%         32         5,941         274,299         4,6179           2049-2053         56,814         3,904,025         6,872%         105         13,903         945,717         6,8029           2054-2058         14,748         2,136,832         14,489%         42         2,909         417,917         14,3659           2059-2063         2,789         882,645         31,642%         13         444         139,260         31,3629           2064-2068         356         277,276         77,891%         3         46   |            |           |                                       |                  | ,          |             |            |            | 1,977%     |
| 2044   |            |           |                                       |                  |            | 60          |            |            | 2,262%     |
| 2045   |            | 2044      | 48,481                                | 1,258,253        | 2,595%     | 53          | 15,773     | 409,287    | 2,595%     |
| 2047   |            | 2045      | 40,251                                | 1,200,787        | 2,983%     | 47          | 12,533     | 373,954    | 2,984%     |
| 2048   |            |           |                                       |                  |            | 42          |            |            | 3,441%     |
| 2049-2053   56,814   3,904,025   6,872%   105   13,903   945,717   6,8029  |            |           |                                       |                  |            |             |            |            | 3,981%     |
| 2054-2058  |            |           |                                       | , ,              |            |             | · ·        | ,          | 4,617%     |
| 2059-2063   2,789   882,645   31,642%   13   444   139,260   31,3629   32064-2068   356   277,276   77,891%   3   46   35,261   77,0669   2069-2073   25   65,630   263,604%   0   3   6,725   258,9269   1   11,698   1,583,175%   0   0   966   1,547,4049   |            |           |                                       |                  |            |             |            |            | 6,802%     |
| 2064-2068   356   277,276   77,891%   3   46   35,261   77,0669   2074-2078   1   11,698   1,583,175%   0   0   0   966   1,547,4049  |            |           |                                       | , ,              | ,          |             |            |            |            |
| 2069-2073   25   65,630   263,604%   0   3   6,725   258,926%   1   11,698   1,583,175%   0   0   0   966   1,547,404%   |            |           |                                       |                  |            |             |            |            |            |
| History Future 8,702,809 42,010,382 1,583,175% 0 0 0 966 1,547,4049 409 409 409 409 409 409 409 409 409  |            |           |                                       |                  |            |             |            |            |            |
| History 32,410,582 17,570,699 54% 21,446 67,344,225 27,060,780 40% Future 8,702,809 42,010,382 483% 4,808 6,311,165 19,960,233 316%  |            |           |                                       |                  |            |             |            |            |            |
| Future 8,702,809 42,010,382 483% 4,808 6,311,165 19,960,233 3169   |            | 2014-2018 | 1                                     | 11,098           | 1,563,175% | Ü           | 0          | 900        | 1,547,404% |
| Future 8,702,809 42,010,382 483% 4,808 6,311,165 19,960,233 3169   | His        | tory      | 32,410,582                            | 17,570,699       | 54%        | 21,446      | 67,344,225 | 27,060,780 | 40%        |
|  |            | •         |                                       |                  |            |             |            |            | 316%       |
|  | Life       | time      | 41,113,391                            | 59,581,082       |            | 26,254      | 73,655,390 | 47,021,014 | 64%        |

Attachment 3-b MedAmerica and Affinity Partners Written Premium and Paid Claim Experience and Projections by Calendar Year Pennsylvania-Specific Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|            |              |                      |                        | Los          | s Ratio Demonstr | ration                 |                      |              |
|------------|--------------|----------------------|------------------------|--------------|------------------|------------------------|----------------------|--------------|
|            |              |                      | Without Interest       |              |                  |                        | ith Max. Val. Inter  |              |
|            |              | Α                    | В                      | C = B / A    | D                | E                      | F                    | G = F / E    |
|            |              | 14/1/                | 5                      |              |                  | 147.00                 | D                    |              |
|            | Calendar     | Written              | Paid                   | . D.         | End of Year      | Written                | Paid                 |              |
|            | Year         | Premium              | Claims                 | Loss Ratio   | Lives            | Premium                | Claims               | Loss Ratio   |
|            | 1992         | 127,778              | 0<br>435               | 0%<br>0%     | 111<br>580       | 528,014                |                      | 0%<br>0%     |
|            | 1993<br>1994 | 771,602<br>1,646,826 | 45,498                 | 3%           | 1,190            | 2,723,433<br>5,481,903 |                      | 3%           |
|            | 1994         | 1,722,034            | 63,694                 | 4%           | 1,165            | 5,342,668              |                      | 4%           |
|            | 1996         | 1,554,699            | 57.268                 | 4%           | 1,055            | 4,581,861              | 171,662              | 4%           |
|            | 1997         | 1,395,175            | 34,233                 | 2%           | 953              | 3,919,636              | ,                    | 2%           |
|            | 1998         | 1,334,369            | 1,801                  | 0%           | 912              | 3,570,919              | ,                    | 0%           |
|            | 1999         | 1,284,526            | 169,733                | 13%          | 872              | 3,266,671              | 442,693              | 14%          |
|            | 2000         | 1,267,362            | 413,900                | 33%          | 859              | 3.060.933              | ,                    | 33%          |
|            | 2001         | 1,240,506            | 488,498                | 39%          | 895              | 2,840,696              | ,,                   | 40%          |
|            | 2002         | 1,491,708            | 609,346                | 41%          | 1,036            | 3,218,709              | 1,347,361            | 42%          |
| Historical | 2003         | 1,584,734            | 748,375                | 47%          | 1,078            | 3,246,745              |                      | 49%          |
| Experience | 2004         | 1,622,837            | 647,095                | 40%          | 1,139            | 3,161,126              | 1,288,007            | 41%          |
|            | 2005         | 1,563,977            | 660,435                | 42%          | 1,089            | 2,905,534              | 1,245,652            | 43%          |
|            | 2006         | 1,461,395            | 842,743                | 58%          | 1,021            | 2,590,405              | 1,506,285            | 58%          |
|            | 2007         | 1,384,149            | 909,721                | 66%          | 983              | 2,342,450              | 1,557,986            | 67%          |
|            | 2008         | 1,305,785            | 953,070                | 73%          | 906              | 2,110,532              | 1,569,764            | 74%          |
|            | 2009         | 1,225,767            | 769,442                | 63%          | 858              | 1,891,874              |                      | 64%          |
|            | 2010         | 1,088,587            | 781,353                | 72%          | 720              | 1,601,919              | 1,171,564            | 73%          |
|            | 2011         | 1,044,143            | 922,011                | 88%          | 664              | 1,467,006              |                      | 90%          |
|            | 2012         | 1,065,337            | 1,110,217              | 104%         | 605              | 1,430,477              |                      | 106%         |
|            | 2013         | 1,052,019            | 1,400,952              | 133%         | 553              | 1,349,191              | 1,814,559            | 134%         |
|            | 2014         | 970,770              | 1,346,909              | 139%         | 516              | 1,189,655              |                      | 140%         |
|            | 2015         | 882,638              | 1,276,318              | 145%         | 472              | 1,033,315              |                      | 145%         |
|            | 2016         | 818,490              | 1,151,366              | 141%         | 440              | 915,718                |                      | 141%         |
|            | 2017         | 757,550<br>745,820   | 1,067,878              | 141%<br>147% | 408<br>366       | 810,160                | , ,                  | 141%         |
|            | 2018<br>2019 | 812,172              | 1,098,408<br>943,655   | 116%         | 339              | 762,675<br>794,251     | 1,123,511<br>922,626 | 147%<br>116% |
|            | 2020         | 921,967              | 900,767                | 98%          | 310              | ,                      | ,                    | 98%          |
|            | 2021         | 969,655              | 954,495                | 98%          | 286              | 867,680                |                      | 98%          |
|            | 2022         | 899,170              | 886,008                | 99%          | 270              | 769,769                | ,                    | 98%          |
|            | 2023         | 835,764              | 906,897                | 109%         | 256              | 684,576                | ,                    | 108%         |
|            | 2024         | 715,552              | 919,165                | 128%         | 242              | 560,758                | ,                    | 128%         |
|            | 2025         | 611,324              | 928,418                | 152%         | 228              | 458,379                | 693,574              | 151%         |
|            | 2026         | 567,149              | 941,204                | 166%         | 215              | 406,966                | 672,668              | 165%         |
|            | 2027         | 519,546              | 959,366                | 185%         | 203              | 356,614                | 656,040              | 184%         |
|            | 2028         | 480,217              | 982,556                | 205%         | 191              | 315,438                | 642,960              | 204%         |
|            | 2029         | 442,851              | 1,010,225              | 228%         | 180              | 278,385                | ,                    | 227%         |
| Projected  | 2030         | 407,288              | 1,042,902              | 256%         | 169              | 245,022                | ,                    | 255%         |
| Future     | 2031         | 373,368              | 1,078,719              | 289%         | 158              | 214,962                |                      | 288%         |
| Experience | 2032         | 340,911              | 1,115,402              | 327%         | 148              | 187,841                |                      | 326%         |
| (60 Years) | 2033         | 309,912              | 1,152,429              | 372%         | 138              | 163,424                | ,                    | 371%         |
|            | 2034         | 280,354              | 1,187,380              | 424%         | 128              | 141,487                |                      | 422%         |
|            | 2035         | 252,260              | 1,220,689              | 484%         | 119              | 121,841                |                      | 483%         |
|            | 2036         | 225,609              | 1,250,174              | 554%         | 110              | ,                      | 576,336              | 553%         |
|            | 2037<br>2038 | 200,470<br>176,888   | 1,273,393<br>1,288,394 | 635%<br>728% | 101<br>93        | 88,690<br>74,898       | 561,953<br>544,296   | 634%<br>727% |
|            | 2039         | 154,925              | 1,293,132              | 835%         | 85               | 62,782                 |                      | 833%         |
|            | 2040         | 134,607              | 1,285,893              | 955%         | 78               | 52,206                 |                      | 954%         |
|            | 2041         | 115,922              | 1,265,813              | 1,092%       | 71               | 43,029                 | 469,204              | 1,090%       |
|            | 2042         | 98,936               | 1,234,261              | 1,248%       | 64               | 35,146                 |                      | 1,246%       |
|            | 2043         | 83,635               | 1,194,211              | 1,428%       | 57               | 28,434                 |                      | 1,427%       |
|            | 2044         | 69,989               | 1,148,840              | 1,641%       | 52               | 22,772                 |                      | 1,641%       |
|            | 2045         | 57,971               | 1,098,692              | 1,895%       | 46               | 18,051                 | 342,187              | 1,896%       |
|            | 2046         | 47,513               | 1,044,643              | 2,199%       | 41               | 14,159                 | 311,501              | 2,200%       |
|            | 2047         | 38,523               | 987,090                | 2,562%       | 36               | 10,986                 | 281,804              | 2,565%       |
|            | 2048         | 30,925               | 926,551                | 2,996%       | 31               | 8,440                  |                      | 3,001%       |
|            | 2049-2053    | 79,385               | 3,630,953              | 4,574%       | 102              | 19,437                 |                      | 4,525%       |
|            | 2054-2058    | 19,995               | 2,008,204              | 10,044%      | 41               | 3,946                  |                      | 9,955%       |
|            | 2059-2063    | 3,690                | 836,375                | 22,665%      | 13               | 588                    |                      | 22,459%      |
|            | 2064-2068    | 455                  | 264,333                | 58,061%      | 3                | 59                     |                      | 57,427%      |
|            | 2069-2073    | 30                   | 62,837                 | 212,118%     | 0                |                        |                      | 208,028%     |
|            | 2074-2078    | 1                    | 11,238                 | 1,337,846%   | 0                | 0                      | 928                  | 1,307,784%   |
| Hist       | tory         | 32,410,582           | 17,570,699             | 54%          | 21,446           | 67,344,225             | 27,060,780           | 40%          |
| Futi       |              | 11,278,930           | 39,235,304             | 348%         | 4,606            | 8,017,727              |                      | 235%         |
| . att      | time         | 43,689,512           | 56,806,003             | 130%         | 26,052           | 75,361,952             |                      | 61%          |

#### Attachment 4 **MedAmerica and Affinity Partners** Breakdown of Historical Incurred Claims and Reserve Balances at December 31, 2018 Series 11 and Prior Policy Forms

Nationwide Experience

|          |                       |            | ed to the Year o |           |                        | Year-End               |
|----------|-----------------------|------------|------------------|-----------|------------------------|------------------------|
| Incurred | Incurred              | Paid       | Disabled         | IBNR      | Total Claim            | Active Life            |
| Year     | Claims <sup>[1]</sup> | Claims     | Life Reserve     | Reserve   | Reserve <sup>[2]</sup> | Reserve <sup>[3]</sup> |
| 1992     | 0                     | 0          | 0                |           | 0                      |                        |
| 1993     | 112,031               | 112,031    | 0                |           | 0                      |                        |
| 1994     | 28,415                | 28,415     | 0                |           | 0                      |                        |
| 1995     | 109,652               | 109,652    | 0                |           | 0                      |                        |
| 1996     | 134,262               | 134,262    | 0                |           | 0                      |                        |
| 1997     | 258,439               | 258,439    | 0                |           | 0                      |                        |
| 1998     | 631,867               | 631,867    | 0                |           | 0                      |                        |
| 1999     | 1,469,714             | 1,469,714  | 0                |           | 0                      |                        |
| 2000     | 1,172,992             | 1,172,992  | 0                |           | 0                      |                        |
| 2001     | 2,031,477             | 2,031,477  | 0                |           | 0                      |                        |
| 2002     | 4,129,889             | 3,997,455  | 132,434          |           | 132,434                |                        |
| 2003     | 3,320,983             | 3,293,738  | 27,245           |           | 27,245                 |                        |
| 2004     | 6,241,153             | 6,241,153  | 0                |           | 0                      |                        |
| 2005     | 6,804,563             | 6,731,365  | 73,198           |           | 73,198                 |                        |
| 2006     | 7,236,076             | 7,090,556  | 145,520          |           | 145,520                |                        |
| 2007     | 10,582,193            | 10,392,876 | 189,317          |           | 189,317                |                        |
| 2008     | 8,154,815             | 8,104,854  | 49,961           |           | 49,961                 |                        |
| 2009     | 11,148,740            | 10,848,203 | 300,536          |           | 300,536                |                        |
| 2010     | 15,825,758            | 14,811,026 | 1,014,732        |           | 1,014,732              |                        |
| 2011     | 13,405,255            | 13,034,288 | 370,967          |           | 370,967                |                        |
| 2012     | 15,249,799            | 14,331,794 | 918,005          |           | 918,005                |                        |
| 2013     | 14,358,025            | 13,489,692 | 868,333          |           | 868,333                |                        |
| 2014     | 22,522,172            | 19,333,729 | 3,188,443        |           | 3,188,443              |                        |
| 2015     | 23,851,868            | 15,548,243 | 8,303,625        |           | 8,303,625              |                        |
| 2016     | 21,675,244            | 12,688,209 | 8,987,035        |           | 8,987,035              |                        |
| 2017     | 26,052,673            | 8,940,139  | 17,112,534       |           | 17,112,534             |                        |
| 2018     | 22,741,293            | 2,229,329  | 16,130,518       | 4,381,446 | 20,511,964             | 367,206,640            |

Pennsylvania-Specific Experience

| Pennsylvania-Specific Experience |                       |           |                  |         |                        |                        |  |  |  |  |
|----------------------------------|-----------------------|-----------|------------------|---------|------------------------|------------------------|--|--|--|--|
|                                  |                       |           | ed to the Year o |         |                        | Year-End               |  |  |  |  |
| Incurred                         | Incurred              | Paid      | Disabled         | IBNR    | Total Claim            | Active Life            |  |  |  |  |
| Year                             | Claims <sup>[1]</sup> | Claims    | Life Reserve     | Reserve | Reserve <sup>[2]</sup> | Reserve <sup>[3]</sup> |  |  |  |  |
| 1992                             | 0                     | 0         | 0                |         | 0                      |                        |  |  |  |  |
| 1993                             | 112,031               | 112,031   | 0                |         | 0                      |                        |  |  |  |  |
| 1994                             | 28,415                | ,         | 0                |         | 0                      |                        |  |  |  |  |
| 1995                             | 55,039                | 55,039    | 0                |         | 0                      |                        |  |  |  |  |
| 1996                             | 5,871                 | 5,871     | 0                |         | 0                      |                        |  |  |  |  |
| 1997                             | 114,890               | 114,890   | 0                |         | 0                      |                        |  |  |  |  |
| 1998                             | 235,553               | 235,553   | 0                |         | 0                      |                        |  |  |  |  |
| 1999                             | 377,829               | 377,829   | 0                |         | 0                      |                        |  |  |  |  |
| 2000                             | 481,212               | 481,212   | 0                |         | 0                      |                        |  |  |  |  |
| 2001                             | 713,556               | 713,556   | 0                |         | 0                      |                        |  |  |  |  |
| 2002                             | 745,816               | 745,816   | 0                |         | 0                      |                        |  |  |  |  |
| 2003                             | 464,534               | 464,534   | 0                |         | 0                      |                        |  |  |  |  |
| 2004                             | 958,964               | 958,964   | 0                |         | 0                      |                        |  |  |  |  |
| 2005                             | 656,165               | 656,165   | 0                |         | 0                      |                        |  |  |  |  |
| 2006                             | 751,072               | 751,072   | 0                |         | 0                      |                        |  |  |  |  |
| 2007                             | 940,403               | 940,403   | 0                |         | 0                      |                        |  |  |  |  |
| 2008                             | 815,074               | 815,074   | 0                |         | 0                      |                        |  |  |  |  |
| 2009                             | 777,589               | 777,589   | 0                |         | 0                      |                        |  |  |  |  |
| 2010                             | 817,263               | 817,263   | 0                |         | 0                      |                        |  |  |  |  |
| 2011                             | 1,478,296             | 1,419,341 | 58,955           |         | 58,955                 |                        |  |  |  |  |
| 2012                             | 1,289,377             |           | 0                |         | 0                      |                        |  |  |  |  |
| 2013                             | 974,481               | 974,481   | 0                |         | 0                      |                        |  |  |  |  |
| 2014                             | 1,541,550             | 1,371,110 | 170,440          |         | 170,440                |                        |  |  |  |  |
| 2015                             | 2,274,579             | 1,317,942 | 956,637          |         | 956,637                |                        |  |  |  |  |
| 2016                             | 454,863               | 350,229   | 104,634          |         | 104,634                |                        |  |  |  |  |
| 2017                             | 1,455,496             | 600,554   | 854,942          |         | 854,942                |                        |  |  |  |  |
| 2018                             | 520,614               | 89,750    | 279,884          | 150,980 | 430,864                | 7,953,277              |  |  |  |  |

<sup>[1]</sup> Incurred claims are the sum of paid claims, disabled life reserve, and incurred but not reported (IBNR) reserve.

<sup>[2]</sup> Claim reserve is the sum of disabled life reserve and IBNR reserve.
[3] Active life reserve is defined as interpolated terminal reserves plus unearned premium reserves.

# Attachment 5-a MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Policy Year Nationwide Experience Before Requested Rate Increase Series 11 and Prior Policy Forms

|        | Loss Ratio Demonstration |               |            |             |                 |  |  |  |  |
|--------|--------------------------|---------------|------------|-------------|-----------------|--|--|--|--|
|        | Α                        | В             | С          | D           | Е               |  |  |  |  |
|        |                          |               |            |             |                 |  |  |  |  |
|        |                          |               |            |             | Cumulative Loss |  |  |  |  |
| Policy | Earned                   | Incurred      | Incurred   | End of Year | Ratio w/ Max.   |  |  |  |  |
| Year   | Premium                  | Claims        | Loss Ratio | Lives       | Val. Interest   |  |  |  |  |
| 1      | 39,718,176               | 1,747,697     | 4%         | 26,142      | 4%              |  |  |  |  |
| 2      | 36,464,683               | 1,769,811     | 5%         | 24,550      |                 |  |  |  |  |
| 3      | 34,637,458               | 3,134,306     | 9%         | 23,446      |                 |  |  |  |  |
| 4      | 33,269,635               | 7,731,617     | 23%        | 22,466      | 10%             |  |  |  |  |
| 5      | 32,327,154               | 6,090,854     | 19%        | 21,811      | 11%             |  |  |  |  |
| 6      | 31,468,971               | 9,289,834     | 30%        | 21,151      | 14%             |  |  |  |  |
| 7      | 30,749,469               | 9,041,797     | 29%        | ·           | 15%             |  |  |  |  |
| 8      | 30,227,128               | 14,806,631    | 49%        | 19,836      | 19%             |  |  |  |  |
| 9      | 29,838,979               | 15,293,304    | 51%        | 19,167      | 21%             |  |  |  |  |
| 10     | 30,111,226               | 13,689,648    | 45%        | 18,587      | 23%             |  |  |  |  |
| 11     | 23,344,686               | 15,864,982    | 68%        | ·           |                 |  |  |  |  |
| 12     | 22,911,796               | 19,492,712    | 85%        | 17,400      |                 |  |  |  |  |
| 13     | 22,357,648               | 19,306,762    | 86%        | 16,768      | 31%             |  |  |  |  |
| 14     | 21,830,738               | 19,279,958    | 88%        | 16,127      | 33%             |  |  |  |  |
| 15     | 21,307,001               | 24,587,726    | 115%       | 15,251      | 36%             |  |  |  |  |
| 16     | 21,068,252               | 24,567,034    | 117%       | 14,563      | 38%             |  |  |  |  |
| 17     | 20,854,312               | 23,540,758    | 113%       | 13,955      | 40%             |  |  |  |  |
| 18     | 20,520,118               | 29,030,001    | 141%       | 13,386      |                 |  |  |  |  |
| 19     | 20,011,880               | 28,719,099    | 144%       | 12,881      | 45%             |  |  |  |  |
| 20     | 19,429,656               | 29,927,701    | 154%       | 12,388      |                 |  |  |  |  |
| 21     | 17,683,174               | 31,750,929    | 180%       | 11,894      | 50%             |  |  |  |  |
| 22     | 16,776,847               | 33,839,731    | 202%       | 11,382      |                 |  |  |  |  |
| 23     | 15,800,891               | 35,768,668    | 226%       | ·           | 55%             |  |  |  |  |
| 24     | 14,836,082               | 37,979,437    | 256%       | 10,414      | 58%             |  |  |  |  |
| 25     | 13,862,339               | 40,631,481    | 293%       | 9,931       | 60%             |  |  |  |  |
| 26     | 12,902,087               | 42,643,110    | 331%       | 9,449       | 63%             |  |  |  |  |
| 27     | 11,950,198               | 44,975,327    | 376%       | 8,964       | 66%             |  |  |  |  |
| 28     | 11,014,325               | 47,285,258    | 429%       | 8,478       |                 |  |  |  |  |
| 29     | 10,102,855               | 49,401,522    | 489%       | 7,993       | 72%             |  |  |  |  |
| 30     | 9,222,298                | 51,245,903    | 556%       | 7,511       | 74%             |  |  |  |  |
| 31     | 8,376,802                | 52,825,542    | 631%       | 7,034       | 77%             |  |  |  |  |
| 32     | 7,569,986                | 54,153,701    | 715%       | 6,564       | 80%             |  |  |  |  |
| 33     | 6,804,890                | 55,116,152    | 810%       | 6,104       | 83%             |  |  |  |  |
| 34     | 6,083,913                | 55,769,194    | 917%       | 5,656       |                 |  |  |  |  |
| 35     | 5,409,196                | 55,930,630    | 1,034%     | 5,222       | 88%             |  |  |  |  |
| 36     | 4,782,507                | 55,619,622    | 1,163%     | 4,803       | 91%             |  |  |  |  |
| 37     | 4,204,525                | 54,852,122    | 1,305%     | 4,403       | 93%             |  |  |  |  |
| 38     | 3,675,251                | 53,670,929    | 1,460%     | 4,021       | 95%             |  |  |  |  |
| 39     | 3,194,249                | 52,096,326    | 1,631%     | 3,661       | 97%             |  |  |  |  |
| 40     | 2,760,445                | 50,220,434    | 1,819%     | 3,322       | 99%             |  |  |  |  |
| 41     | 2,372,145                | 48,046,211    | 2,025%     | 3,005       | 101%            |  |  |  |  |
| 42     | 2,027,211                | 45,677,793    | 2,253%     | 2,710       | 102%            |  |  |  |  |
| 43     | 1,723,062                | 43,175,389    | 2,506%     | 2,437       | 104%            |  |  |  |  |
| 44     | 1,456,876                | 40,501,308    | 2,780%     | 2,187       | 105%            |  |  |  |  |
| 45     | 1,225,643                | 37,669,560    | 3,073%     | 1,957       | 106%            |  |  |  |  |
| 46-50  | 3,664,050                | 146,871,972   | 4,008%     | 7,015       | 110%            |  |  |  |  |
| 51-55  | 1,385,187                | 87,090,041    | 6,287%     | 3,833       | 112%            |  |  |  |  |
| 56-60  | 486,525                  | 44,398,432    | 9,126%     | 2,001       | 113%            |  |  |  |  |
| 61-65  | 155,103                  | 19,642,542    | 12,664%    | 949         | 113%            |  |  |  |  |
| 66-70  | 42,929                   | 7,487,981     | 17,443%    | 367         | 113%            |  |  |  |  |
| 71-75  | 9,977                    | 2,186,102     | 21,912%    | 99          | 114%            |  |  |  |  |
| T.4.1  | 744.040.501              | 4 705 405 550 | 04401      | F10.011     | 44401           |  |  |  |  |
| Total  | 744,010,534              | 1,795,435,579 | 241%       | 542,641     | 114%            |  |  |  |  |

# Attachment 5-b MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Policy Year Nationwide Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|        |             | Loss Ratio Demonstration |            |             |                  |  |  |  |  |
|--------|-------------|--------------------------|------------|-------------|------------------|--|--|--|--|
|        | Α           | В                        | С          | D           | E                |  |  |  |  |
|        |             |                          |            |             |                  |  |  |  |  |
|        |             |                          |            |             | Cumulative Loss  |  |  |  |  |
| Policy | Earned      | Incurred                 | Incurred   | End of Year | Ratio w/ Max.    |  |  |  |  |
| Year   | Premium     | Claims                   | Loss Ratio | Lives       | Val. Interest    |  |  |  |  |
| 1      | 39,718,176  | 1,747,697                | 4%         | 26,142      | 4%               |  |  |  |  |
| 2      | 36,464,683  | 1,769,811                | 5%         | 24,550      | 5%               |  |  |  |  |
| 3      | 34,641,605  | 3,134,258                | 9%         | 23,444      | 6%               |  |  |  |  |
| 4      | 33,303,326  | 7,731,201                | 23%        | 22,459      | 10%              |  |  |  |  |
| 5      | 32,395,258  | 6,090,069                | 19%        | 21,800      | 11%              |  |  |  |  |
| 6      | 31,604,573  | 9,288,006                | 29%        | 21,129      | 14%              |  |  |  |  |
| 7      | 30,927,101  | 9,038,674                | 29%        | 20,500      | 15%              |  |  |  |  |
| 8      | 30,446,683  | 14,801,671               | 49%        | 19,802      | 19%              |  |  |  |  |
| 9      | 30,138,933  | 15,284,378               | 51%        | 19,123      | 21%              |  |  |  |  |
| 10     | 30,524,337  | 13,673,607               | 45%        | 18,528      | 23%              |  |  |  |  |
| 11     | 23,834,017  | 15,840,537               | 66%        | 17,912      | 25%              |  |  |  |  |
| 12     | 23,459,261  | 19,459,084               | 83%        | 17,334      | 28%              |  |  |  |  |
| 13     | 23,002,642  | 19,260,907               | 84%        |             | 30%              |  |  |  |  |
| 14     | 22,654,952  | 19,212,155               | 85%        |             | 32%              |  |  |  |  |
| 15     | 22,322,901  | 24,485,396               | 110%       |             | 35%              |  |  |  |  |
| 16     | 22,451,586  | 24,403,556               | 109%       | 14,415      | 38%              |  |  |  |  |
| 17     | 23,097,916  | 23,237,984               | 101%       | 13,672      | 40%              |  |  |  |  |
| 18     | 24,297,750  | 28,440,180               | 117%       | 12,969      | 42%              |  |  |  |  |
| 19     | 25,254,902  | 27,797,884               | 110%       | 12,379      | 44%              |  |  |  |  |
| 20     | 25,779,644  | 28,606,571               | 111%       | 11,827      | 46%              |  |  |  |  |
| 21     | 24,285,929  | 29,968,434               | 123%       | 11,296      | 48%              |  |  |  |  |
| 22     | 23,781,864  | 31,641,851               | 133%       | 10,780      | 50%              |  |  |  |  |
| 23     | 22,823,513  | 33,206,559               | 145%       | 10,310      | 52%              |  |  |  |  |
| 24     | 21,655,811  | 35,083,299               | 162%       | 9,841       | 53%              |  |  |  |  |
| 25     | 20,388,349  | 37,409,594               | 183%       | 9,382       | 56%              |  |  |  |  |
| 26     | 19,045,242  | 39,140,107               | 206%       | 8,927       | 58%              |  |  |  |  |
| 27     | 17,672,530  | 41,225,324               | 233%       | 8,472       | 60%              |  |  |  |  |
| 28     | 16,295,238  | 43,322,192               | 266%       | 8,019       | 62%              |  |  |  |  |
| 29     | 14,945,529  | 45,254,948               | 303%       | 7,566       | 64%              |  |  |  |  |
| 30     | 13,634,380  | 46,950,048               | 344%       | 7,117       | 67%              |  |  |  |  |
| 31     | 12,374,937  | 48,412,853               | 391%       |             | 69%              |  |  |  |  |
| 32     | 11,173,913  | 49,653,394               | 444%       |             | 71%              |  |  |  |  |
| 33     | 10,035,948  | 50,564,549               | 504%       |             | 73%              |  |  |  |  |
| 34     | 8,964,646   | 51,192,297               | 571%       | 5,381       | 76%              |  |  |  |  |
| 35     | 7,963,116   | 51,370,460               | 645%       | 4,973       | 78%              |  |  |  |  |
| 36     | 7,033,908   | 51,120,983               | 727%       | 4,580       | 80%              |  |  |  |  |
| 37     | 6,177,889   | 50,456,239               | 817%       | 4,203       | 82%              |  |  |  |  |
| 38     | 5,394,874   | 49,415,671               | 916%       | 3,844       | 83%              |  |  |  |  |
| 39     | 4,684,039   | 48,018,635               | 1,025%     | 3,503       | 85%              |  |  |  |  |
| 40     | 4,043,600   | 46,345,274               | 1,146%     | 3,182       | 87%              |  |  |  |  |
| 41     | 3,470,880   | 44,398,990               | 1,279%     | 2,882       | 88%              |  |  |  |  |
| 42     | 2,962,603   | 42,260,428               | 1,426%     | 2,603       | 89%              |  |  |  |  |
| 43     | 2,514,857   | 39,989,056               | 1,590%     | 2,344       | 91%              |  |  |  |  |
| 44     | 2,123,391   | 37,547,585               | 1,768%     | 2,105       | 92%              |  |  |  |  |
| 45     | 1,783,697   | 34,955,666               | 1,960%     | 1,887       | 93%              |  |  |  |  |
| 46-50  | 5,308,862   | 136,721,530              | 2,575%     | 6,786       | 96%              |  |  |  |  |
| 51-55  | 1,988,230   | 81,359,548               | 4,092%     | 3,730       | 98%              |  |  |  |  |
| 56-60  | 691,114     | 41,543,563               | 6,011%     | 1,958       | 99%              |  |  |  |  |
| 61-65  | 217,912     | 18,442,502               | 8,463%     | 932         | 99%              |  |  |  |  |
| 66-70  | 59,967      | 7,047,672                | 11,753%    | 362         | 99%              |  |  |  |  |
| 71-75  | 14,095      | 2,055,883                | 14,586%    | 97          | 99%              |  |  |  |  |
| Total  | 859,831,113 | 1,679,378,762            | 195%       | 531,638     | 99%              |  |  |  |  |
| iotai  | 000,001,110 | 1,010,010,102            | 190 /0     | 331,030     | <del>33</del> 70 |  |  |  |  |

# Attachment 6-a MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Policy Year Pennsylvania-Specific Experience Before Requested Rate Increase Series 11 and Prior Policy Forms

|          |                   | Loss Ratio Demonstration |                  |                |                 |
|----------|-------------------|--------------------------|------------------|----------------|-----------------|
|          | A                 | В                        | С                | D              | E               |
|          |                   |                          |                  |                |                 |
| 5        |                   |                          |                  | <b>-</b> 1 ()/ | Cumulative Loss |
| Policy   | Earned            | Incurred                 | Incurred         | End of Year    | Ratio w/ Max.   |
| Year     | Premium 3,430,753 | Claims                   | Loss Ratio       | Lives          | Val. Interest   |
| 1 2      | 2,690,162         | 140,446<br>35,491        | 4%<br>1%         | 1,862<br>1,638 | 4%<br>3%        |
| 3        | 2,388,306         | 71,375                   | 3%               | 1,512          | 3%              |
| 4        | 2,388,300         | 148,292                  | 7%               | 1,423          | 4%              |
| 5        | 2,098,971         | 295,943                  | 14%              | 1,347          | 5%              |
| 6        | 2,002,605         | 851,190                  | 43%              | 1,293          | 10%             |
| 7        | 1,895,650         | 924,528                  | 49%              | 1,228          | 13%             |
| 8        | 1,785,541         | 1,026,236                | 57%              | 1,159          | 17%             |
| 9        | 1,694,587         | 814,771                  | 48%              | ,              | 19%             |
| 10       | 1,603,044         | 905,217                  | 56%              | -              | 21%             |
| 11       | 1,491,168         | 838,834                  | 56%              |                | 23%             |
| 12       | 1,409,267         | 1,987,531                | 141%             | 879            | 27%             |
| 13       | 1,319,189         | 1,131,795                | 86%              |                | 29%             |
| 14       | 1,253,345         | 912,183                  | 73%              | 778            | 31%             |
| 15       | 1,195,061         | 1,806,052                | 151%             | 724            | 34%             |
| 16       | 1,136,448         | 1,163,122                | 102%             | 656            | 36%             |
| 17       | 1,092,768         | 763,716                  | 70%              | 588            | 36%             |
| 18       | 1,057,149         | 1,934,914                | 183%             | 521            | 39%             |
| 19       | 1,026,823         | 1,368,533                | 133%             | 480            | 41%             |
| 20       | 981,326           | 1,729,958                | 176%             | 444            | 43%             |
| 21       | 786,250           | 1,408,742                | 179%             | 403            | 44%             |
| 22       | 707,247           | 1,149,586                | 163%             | 363            | 46%             |
| 23       | 628,006           | 944,214                  | 150%             | 328            | 46%             |
| 24       | 570,513           | 1,309,440                | 230%             | 301            | 48%             |
| 25       | 522,813           | 1,389,870                | 266%             | 278            | 49%             |
| 26       | 485,978           | 1,300,413                | 268%             | 258            | 50%             |
| 27       | 446,957           | 1,274,234                | 285%             |                | 51%             |
| 28       | 404,621           | 1,304,653                | 322%             | 220            | 52%             |
| 29       | 362,733           | 1,331,847                | 367%             | 203            | 54%             |
| 30       | 323,928           | 1,352,513                | 418%             | 186            | 55%             |
| 31       | 288,349           | 1,370,693                | 475%             | 171            | 56%             |
| 32       | 255,819           | 1,397,350                | 546%             | 156            | 57%             |
| 33       | 226,244           | 1,420,544                | 628%             | 143            | 58%             |
| 34       | 199,434           | 1,438,867                | 721%             | 130            | 59%             |
| 35       | 175,135           | 1,446,013                | 826%             | 118            | 60%             |
| 36       | 153,153           | 1,447,213                | 945%             | 107            | 60%             |
| 37       | 133,317           | 1,426,729                | 1,070%           | 97             | 61%             |
| 38       | 115,408           | 1,385,391                | 1,200%           | 87             | 62%             |
| 39       | 99,247            | 1,329,493                | 1,340%           | 78             | 63%             |
| 40       | 84,738            | 1,269,554                | 1,498%           | 70             | 63%             |
| 41       | 71,790            | 1,199,024                | 1,670%           | 62<br>55       | 64%             |
| 42       | 60,270            | 1,131,763                | 1,878%           | 55<br>40       | 64%             |
| 43<br>44 | 50,089            | 1,055,303                | 2,107%           | 48<br>42       | 65%<br>65%      |
| 44       | 41,184<br>33,476  | 974,098<br>889,172       | 2,365%<br>2,656% | 36             | 66%             |
| 46-50    | 87,735            | 3,062,614                | 3,491%           | 113            | 67%             |
| 51-55    | 21,919            | 1,198,020                | 5,466%           | 43             | 67%             |
| 56-60    | 3,810             | 320,434                  | 8,409%           | 12             | 67%             |
| 61-65    | 424               | 57,021                   | 13,456%          | 2              | 67%             |
| 66-70    | 24                | 5,787                    | 23,866%          | 0              | 67%             |
| 71-75    | 0                 | 256                      | 53,027%          | 0              | 67%             |
| Total    | 41,113,391        | 55,440,979               | 135%             | 24,756         | 67%             |
| · otai   | 71,110,001        | 55, 170,579              | 100 /0           | 27,100         | 07.70           |

# Attachment 6-b MedAmerica and Affinity Partners Actual and Projected Experience using Current Assumptions by Policy Year Pennsylvania-Specific Experience After Requested Rate Increase Series 11 and Prior Policy Forms

|        |            | Loss Ratio Demonstration |            |             |                 |
|--------|------------|--------------------------|------------|-------------|-----------------|
|        | Α          | В                        | С          | D           | Е               |
|        |            |                          |            |             |                 |
|        |            |                          |            |             | Cumulative Loss |
| Policy | Earned     | Incurred                 | Incurred   | End of Year | Ratio w/ Max.   |
| Year   | Premium    | Claims                   | Loss Ratio | Lives       | Val. Interest   |
| 1      | 3,430,753  | 140,446                  | 4%         | 1,862       |                 |
| 2      | 2,690,162  | 35,491                   | 1%         | 1,638       |                 |
| 3      | 2,388,306  | 71,375                   | 3%         | 1,512       |                 |
| 4      | 2,220,615  | 148,292                  | 7%         | 1,423       |                 |
| 5      | 2,098,971  | 295,943                  | 14%        | 1,347       |                 |
| 6      | 2,002,605  | 851,190                  | 43%        | 1,293       |                 |
| 7      | 1,895,650  | 924,528                  | 49%        | 1,228       |                 |
| 8      | 1,785,541  | 1,026,236                | 57%        | 1,159       |                 |
| 9      | 1,694,587  | 814,771                  | 48%        | 1,084       |                 |
| 10     | 1,603,044  | 905,217                  | 56%        | 1,015       |                 |
| 11     | 1,491,168  | 838,834                  | 56%        | 946         |                 |
| 12     | 1,409,267  | 1,987,531                | 141%       | 879         |                 |
| 13     | 1,319,189  | 1,131,795                | 86%        | 831         |                 |
| 14     | 1,253,541  | 912,184                  | 73%        | 778         |                 |
| 15     | 1,196,196  | 1,806,050                | 151%       | 724         |                 |
| 16     | 1,144,106  | 1,163,170                | 102%       | 656         |                 |
| 17     | 1,119,020  | 763,096                  | 68%        | 586         |                 |
| 18     | 1,121,662  | 1,929,965                | 172%       | 516         |                 |
| 19     | 1,128,801  | 1,357,416                | 120%       | 471         |                 |
| 20     | 1,140,540  | 1,706,764                | 150%       | 432         |                 |
| 21     | 929,284    | 1,378,680                | 148%       | 392         |                 |
| 22     | 853,400    | 1,112,045                | 130%       | 352         |                 |
| 23     | 774,737    | 899,058                  | 116%       | 317         |                 |
| 24     | 712,368    | 1,258,223                | 177%       | 291         | 47%             |
| 25     | 658,425    | 1,333,029                | 202%       | 267         | 48%             |
| 26     | 617,518    | 1,236,804                | 200%       | 247         |                 |
| 27     | 578,900    | 1,200,614                | 207%       | 227         | 50%             |
| 28     | 534,243    | 1,220,843                | 229%       | 209         |                 |
| 29     | 488,088    | 1,238,779                | 254%       | 192         |                 |
| 30     | 439,901    | 1,253,246                | 285%       | 177         |                 |
| 31     | 394,681    | 1,265,779                | 321%       | 162         |                 |
| 32     | 352,921    | 1,285,901                | 364%       | 149         |                 |
| 33     | 314,548    | 1,303,300                | 414%       | 136         |                 |
| 34     | 279,364    | 1,317,013                | 471%       | 124         |                 |
| 35     | 247,078    | 1,321,100                | 535%       | 113         |                 |
| 36     | 217,511    | 1,320,258                | 607%       | 102         |                 |
| 37     | 190,512    | 1,300,659                | 683%       | 93          | 58%             |
| 38     | 165,840    | 1,262,805                | 761%       | 83          |                 |
| 39     | 143,309    | 1,212,483                | 846%       | 75          |                 |
| 40     | 122,860    | 1,159,170                | 943%       | 67          | 60%             |
| 41     | 104,431    | 1,097,081                | 1,051%     | 59          | 61%             |
| 42     | 87,889     | 1,038,059                | 1,181%     | 52          |                 |
| 43     | 73,162     | 970,749                  | 1,327%     | 46          | 62%             |
| 44     | 60,214     | 898,385                  | 1,492%     | 40          | 62%             |
| 45     | 48,958     | 822,080                  | 1,679%     | 35          | 62%             |
| 46-50  | 127,994    | 2,850,520                | 2,227%     | 110         |                 |
| 51-55  | 31,629     | 1,128,568                | 3,568%     | 42          | 64%             |
| 56-60  | 5,404      | 305,362                  | 5,650%     | 12          | 64%             |
| 61-65  | 584        | 55,030                   | 9,425%     | 2           |                 |
| 66-70  | 32         | 5,684                    | 17,996%    | 0           |                 |
| 71-75  | 1          | 257                      | 46,749%    | 0           | 64%             |
|        | 40.000.510 | F0 004 0==               | 10.101     | 04.554      | 0.404           |
| Total  | 43,689,512 | 52,861,855               | 121%       | 24,554      | 64%             |



MedAmerica Insurance Company Home Office: Pittsburgh, PA

MedAmerica Insurance Company of New York Home Office: Rochester, NY

MedAmerica Insurance Company of Florida Home Office: Orlando, FL

### Letter of Authorization

To: Department of Insurance

MedAmerica Insurance Company ("MedAmerica") has entered into a service agreement with Milliman, Inc. ("Milliman") effective October 3, 2016, that includes long-term care rate filing services on our behalf. The agreement provides, in part, that Milliman is responsible for preparing and filing for approval with state insurance departments MedAmerica's long-term care rate increase filings as directed by MedAmerica. Milliman is also authorized to receive, on MedAmerica's behalf, written and oral communication from each state department of insurance for the purpose of completing the rate increase filing process.

Please accept this letter of authorization for the purpose stated above. Should you have any questions regarding the above, please forward your comments to:

MedAmerica Insurance Company 165 Court Street Rochester, NY 14647

Bill Naylon, President

MedAmerica Insurance Company



# Time-Sensitive! Action Needed - Review Options and Make Your Decision RE: Your Long Term Care Insurance Notice of Premium Increase — Please Read & Retain for Your Records

<<FIRST\_NAME>> <<LAST\_NAME>> <<STREET\_ADDRESS1>> <<STREET\_ADDRESS2>> <<CITY>> <<STATE>> <<ZIP>>

<<DATE>>
Billing Account ID: <<POLICY NUMBER>>

Dear << SALUTATION LAST NAME>>:

We are writing to notify you that we have filed a premium increase of <<INC\_AMT>> with the Department of Insurance. This premium change is based on the overall experience of all contracts in your class and has nothing to do with your current age, health status, claims history or any other personal factors. This increase applies to all insureds having the same policy form as you, regardless of the effective date of coverage. Please be advised that premiums are subject to future rate increases.

The premium rate increase for your long term care insurance coverage will change on <<NEXT\_BILL\_DATE>>. Your <<MODAL>> premium payment will change from <<CURRENT\_RATE>> to <<FUTURE RATE>>.

We understand this premium increase may affect your ability to afford your current level of benefits. Please review the options regarding your coverage that are outlined below and make the decision that best meets your needs.

- Option #1: Continue your coverage at your current level of benefits. You may keep your current level of benefits by paying the increased premium when it is due on <<NEXT\_BILL\_DATE>>. If you choose this option, no additional action, other than your premium payment, is required. Please understand that paying the increased premium for coverage through 120 days from the date of the rate increase constitutes your acceptance of the rate increase and voids the offer of the Contingent Non-Forfeiture Benefit outlined in Option #3 below.
- Option #2: Offset the increased premium by reducing your level of benefits. You <u>may</u> be able to adjust your benefits to reduce your premium. Please understand that this option is not always available as you may have selected the state-mandated minimum benefits allowable for long term care insurance. Please call Customer Service toll free at 1-800-240-1675 to discuss your options.
- Option #3: Elect the reduced Contingent Non-Forfeiture Benefit.

If you elect the Contingent Non-Forfeiture Benefit Option, no further premium is due. This option becomes effective as of your current paid through date. As of the date of this letter, your Contingent Non-Forfeiture Benefit would be <<RESULT OF CNF FORMULA>>.

There are two ways to elect the Contingent Non-Forfeiture Benefit:

- Choose this option today by signing and dating the enclosed Contingent Non-Forfeiture Benefit Election Form and returning it in the enclosed postage-paid envelope; OR
- If you do not pay the increased premium <u>within 120 days of the due date</u>, which is <<NEXT\_BILL\_DATE>>, you will be entitled to the Contingent Non-Forfeiture Benefit. We will automatically change your coverage to the Contingent Non-Forfeiture Benefit in lieu of your policy lapsing for non-payment of premium.

<u>IMPORTANT:</u> Paying the increased premium for coverage through 120 days from <<NEXT\_BILL\_DATE>>, constitutes your acceptance of the rate increase and voids the Contingent Non-Forfeiture Benefit offer.

## What is the Contingent Non-Forfeiture Benefit?

The Contingent Non-Forfeiture Benefit Option allows you to retain reduced long term care insurance benefits in the event you can no longer afford your premium due to a substantial premium increase. Under this option, the same **Daily Benefit Amount** in effect at the time of the lapse will be payable, but the **Lifetime Benefit Amount** will be equal to the greater of the items a) or b) below:

- a) The total amount of premiums paid and applied to Your Policy; **OR**
- b) Thirty (30) times the Daily Benefit Amount

The total of all benefits paid under your policy will not exceed the **Lifetime Benefit Amount** that would have been payable if your policy did not lapse.

Important facts to know about this reduced benefit are:

- No future premium is due.
- The Lifetime Benefit Amount is significantly less than the benefit provided if you choose to continue paying your premium.
- All riders and inflation options will be terminated.
- All other terms, conditions, limitations and exclusions in your current coverage apply to the Contingent Non-Forfeiture Benefit.

<u>IMPORTANT NOTE:</u> If your policy includes a Spousal Benefit Transfer Rider, both you and your spouse must continue to maintain identical coverage. You must both select the same option regarding this rate increase.

If you have questions on the above options, please call Customer Service toll free at **1-800-240-1675** between the hours of 8:30 a.m. and 5 p.m. EST, Monday through Friday.

If you are currently on claim and your premium is being waived, the increase will be applied when your premium is no longer being waived. Please be assured that your benefits are not affected and that your claims will continue to be paid.

As always, thank you for your business with the company.

Sincerely,

Cheryl Bush, RN

They Bushen

Senior Vice President, Long Term Care Operations



## Contingent Non-Forfeiture Benefit Election Form

| < <first name="">&gt; &lt;<last name="">&gt;</last></first>     | < <date>&gt;</date>                                       |
|---|---|
| < <street_address1>&gt;</street_address1>                       | Billing Account ID: < <policy_number>&gt;</policy_number> |
| < <street_address2>&gt;</street_address2>                       | _   |
| < <city>&gt; &lt;<stδtf>&gt; &lt;&lt;7IP&gt;&gt;</stδtf></city> |   |

I have decided to stop future premium payments and accept the reduced Contingent Non-Forfeiture Benefit.

I understand the following:

- · No future premium is due; and
- I will have a reduced lifetime benefit equal to the sum of all premiums paid and applied to date, OR thirty (30) times the Daily Benefit Amount, whichever is greater; and
- The Contingent Non-Forfeiture Benefit is significantly less than the benefit provided if I chose to keep paying my premium; and
- The Contingent Non-Forfeiture Benefit is only available if I satisfy the requirements for Benefit Eligibility as defined in my policy or certificate; and
- The Contingent Non-Forfeiture Benefit will be payable up to my Daily Benefit Amount in effect on the date of this change; and
- All riders and inflation options will be terminated; and
- All other terms, conditions, limitations and exclusions in my current coverage apply to the Contingent Non-Forfeiture Benefit.

## Signature:

I request my current long term care insurance coverage be reduced to the Contingent Non-Forfeiture Benefit offered by the company. This option becomes effective as of my current paid through date. This option is not a cash refund. A summary of Contingent Non-Forfeiture Benefits will be sent to me when this request is processed.

| Signature | Date |
|-----------|------|

Mailing Instructions: Sign and date this form and return in the enclosed postage-paid envelope.